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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 18 May 2004 VOL 140 ISS 21
FILE LAST UPDATED: 17 May 2004 (20040517/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s l4/prep
      62 L4
      3148620 PREP/RL
L5      32 L4/PREP
      (L4 (L) PREP/RL)
```

=>

```
=> file reg
COST IN U.S. DOLLARS                SINCE FILE      TOTAL
                                     ENTRY      SESSION
FULL ESTIMATED COST                2.25      30.93
```

FILE 'REGISTRY' ENTERED AT 19:19:06 ON 18 MAY 2004
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 17 MAY 2004 HIGHEST RN 682740-60-9
DICTIONARY FILE UPDATES: 17 MAY 2004 HIGHEST RN 682740-60-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

```
=> s clf5s/mf
L6      10 CLF5S/MF
```

=> d scan

L6 10 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal204jxv

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
SESSION RESUMED IN FILE 'HOME' AT 19:14:58 ON 18 MAY 2004
FILE 'HOME' ENTERED AT 19:14:58 ON 18 MAY 2004
COST IN U.S. DOLLARS

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.63	0.63

=> file reg

COST IN U.S. DOLLARS

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	1.26	1.26

FILE 'REGISTRY' ENTERED AT 19:16:45 ON 18 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 17 MAY 2004 HIGHEST RN 682740-60-9
DICTIONARY FILE UPDATES: 17 MAY 2004 HIGHEST RN 682740-60-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s pentafluorosulfanyl benzene/cn

L1 0 PENTAFLUOROSULFANYL BENZENE/CN

=> s pentafluorosulfanyl benzen

29 PENTAFLUOROSULFANYL
211739 BENZEN

L2 0 PENTAFLUOROSULFANYL BENZEN
(PENTAFLUOROSULFANYL (W) BENZEN)

=> s pentafluorosulfanyl benzene

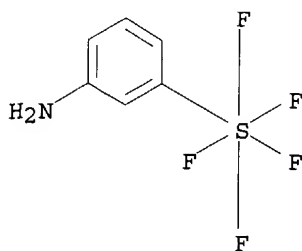
29 PENTAFLUOROSULFANYL
1605841 BENZENE

L3 12 PENTAFLUOROSULFANYL BENZENE
(PENTAFLUOROSULFANYL (W) BENZENE)

=> d scan

L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

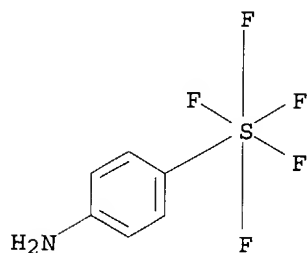
IN Sulfur, (3-aminophenyl)pentafluoro-, (OC-6-21)- (9CI)
MF C6 H6 F5 N S
CI COM



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

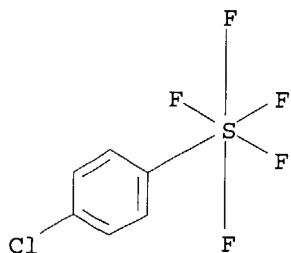
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, (4-aminophenyl)pentafluoro-, (OC-6-21)- (9CI)
MF C6 H6 F5 N S
CI COM



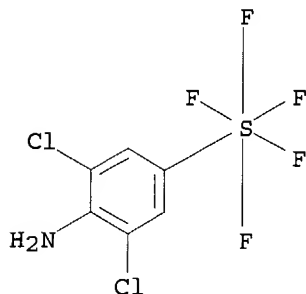
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, (4-chlorophenyl)pentafluoro-, (OC-6-21)- (9CI)
MF C6 H4 Cl F5 S



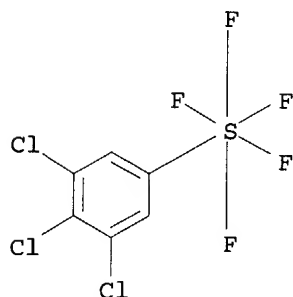
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, (4-amino-3,5-dichlorophenyl)pentafluoro-, (OC-6-21)- (9CI)
MF C6 H4 Cl2 F5 N S



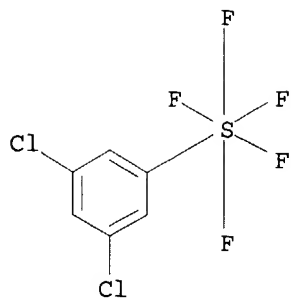
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, pentafluoro(3,4,5-trichlorophenyl)-, (OC-6-21)- (9CI)
MF C6 H2 Cl3 F5 S



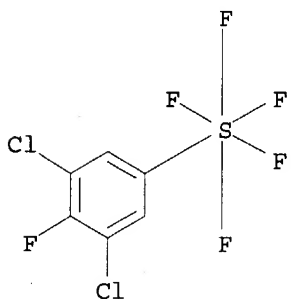
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, (3,5-dichlorophenyl)pentafluoro-, (OC-6-21)- (9CI)
MF C6 H3 Cl2 F5 S



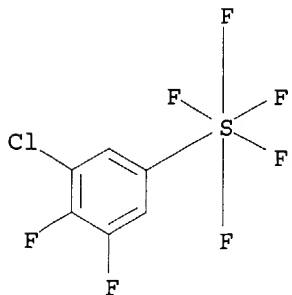
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, (3,5-dichloro-4-fluorophenyl)pentafluoro-, (OC-6-21) - (9CI)
 MF C6 H2 Cl2 F6 S



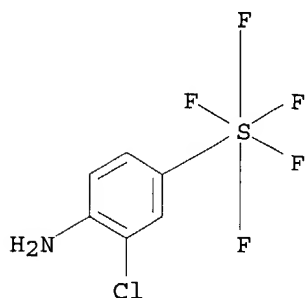
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, (3-chloro-4,5-difluorophenyl)pentafluoro-, (OC-6-21) - (9CI)
 MF C6 H2 Cl F7 S



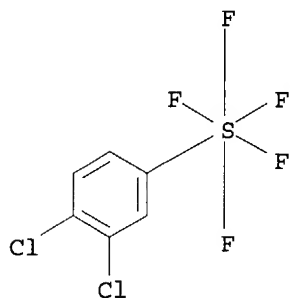
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, (4-amino-3-chlorophenyl)pentafluoro-, (OC-6-21) - (9CI)
MF C6 H5 Cl F5 N S



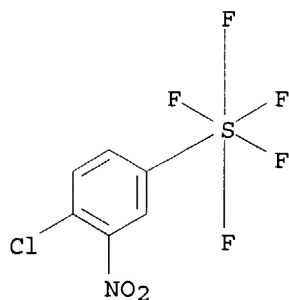
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, (3,4-dichlorophenyl)pentafluoro-, (OC-6-21) - (9CI)
MF C6 H3 Cl2 F5 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

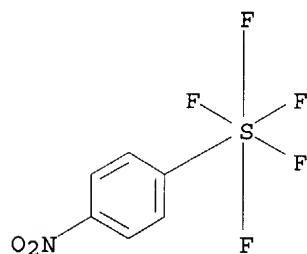
L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, (4-chloro-3-nitrophenyl)pentafluoro-, (OC-6-21) - (9CI)
MF C6 H3 Cl F5 N O2 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

L3 12 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, pentafluoro(4-nitrophenyl)-, (OC-6-21)- (9CI)
 MF C6 H4 F5 N O2 S



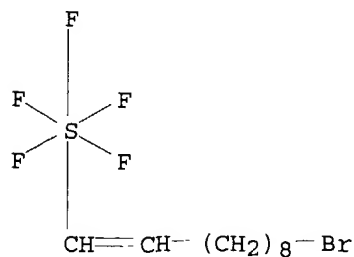
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> s pentafluorosulfanyl
 L4 29 PENTAFLUOROSULFANYL

=> d scan

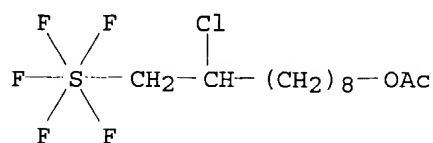
L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, (10-bromo-1-decenyl)pentafluoro-, (OC-6-21)- (9CI)
 MF C10 H18 Br F5 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

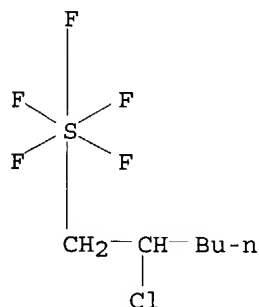
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, [10-(acetyloxy)-2-chlorodecyl]pentafluoro-, (OC-6-21)- (9CI)
MF C12 H22 Cl F5 O2 S



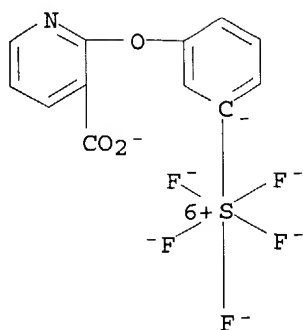
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, (2-chlorohexyl)pentafluoro-, (OC-6-21)- (9CI)
MF C6 H12 Cl F5 S

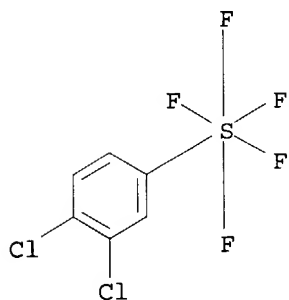


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfate(1-), [3-[(3-carboxylato-2-pyridinyl)oxy]phenyl]pentafluoro-,
hydrogen, (OC-6-21)- (9CI)
MF C12 H7 F5 N O3 S . H
CI CCS

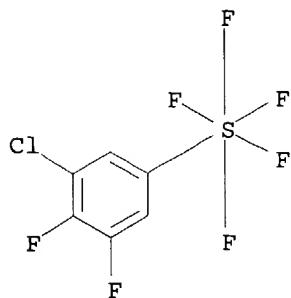


L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, (3,4-dichlorophenyl)pentafluoro-, (OC-6-21) - (9CI)
 MF C6 H3 Cl2 F5 S



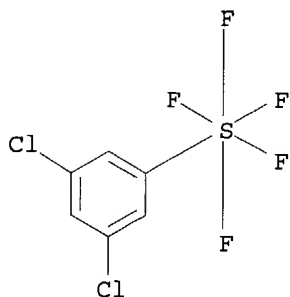
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, (3-chloro-4,5-difluorophenyl)pentafluoro-, (OC-6-21) - (9CI)
 MF C6 H2 Cl F7 S



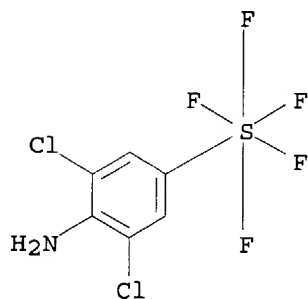
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, (3,5-dichlorophenyl)pentafluoro-, (OC-6-21) - (9CI)
 MF C6 H3 Cl2 F5 S



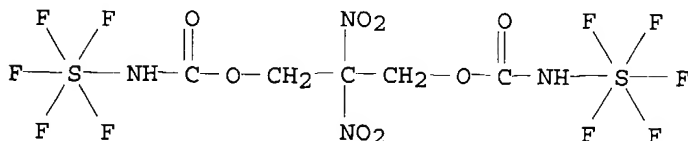
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, (4-amino-3,5-dichlorophenyl)pentafluoro-, (OC-6-21) - (9CI)
 MF C6 H4 Cl2 F5 N S



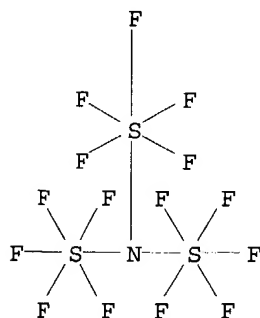
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, [μ -[[2,2-dinitro-1,3-propanediyl di(carbamato- κ N)](2-
)]]decafluorodi- (9CI)
 MF C5 H6 F10 N4 O8 S2



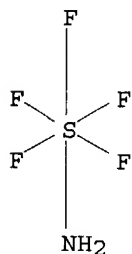
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Nitrogen fluoride sulfide (NF15S3) (9CI)
MF F15 N S3



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur amide fluoride (S(NH₂)F₅), (OC-6-21)- (7CI, 9CI)
MF F5 H2 N S
CI COM

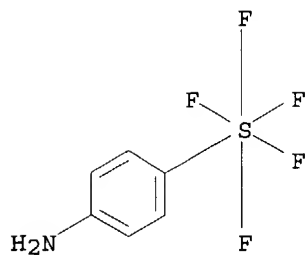


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):`0
``0' IS NOT VALID HERE

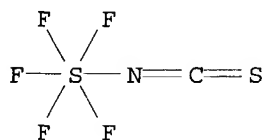
To display more answers, enter the number of answers you would like to see. To end the display, enter "NONE", "N", "0", or "END".
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, (4-aminophenyl)pentafluoro-, (OC-6-21)- (9CI)
MF C6 H6 F5 N S
CI COM



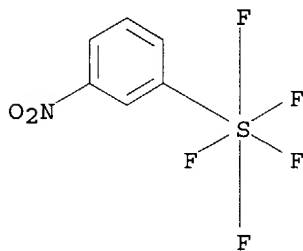
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, pentafluoro(thiocyanato-N)-, (OC-6-21)- (9CI)
 MF C F5 N S2



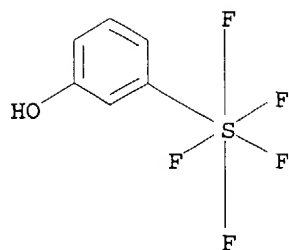
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, pentafluoro(3-nitrophenyl)-, (OC-6-21)- (9CI)
 MF C6 H4 F5 N O2 S



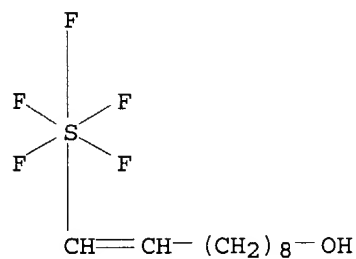
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, pentafluoro(3-hydroxyphenyl)-, (OC-6-21)- (9CI)
 MF C6 H5 F5 O S



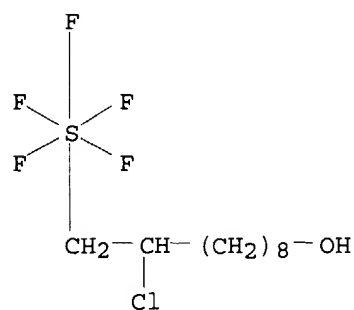
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, pentafluoro(10-hydroxy-1-decenyl)-, (OC-6-21)- (9CI)
 MF C10 H19 F5 O S



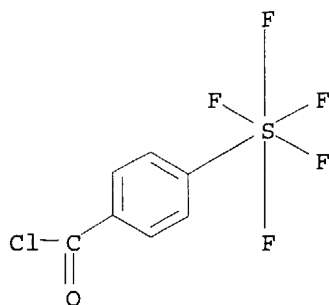
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, (2-chloro-10-hydroxydecyl)pentafluoro-, (OC-6-21)- (9CI)
 MF C10 H20 Cl F5 O S



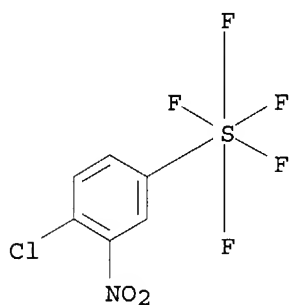
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, [4-(chlorocarbonyl)phenyl]pentafluoro-, (OC-6-21)- (9CI)
 MF C7 H4 Cl F5 O S



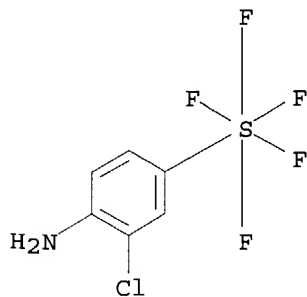
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, (4-chloro-3-nitrophenyl)pentafluoro-, (OC-6-21) - (9CI)
 MF C6 H3 Cl F5 N O2 S



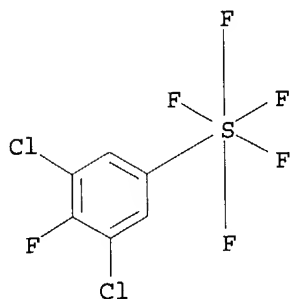
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, (4-amino-3-chlorophenyl)pentafluoro-, (OC-6-21) - (9CI)
 MF C6 H5 Cl F5 N S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

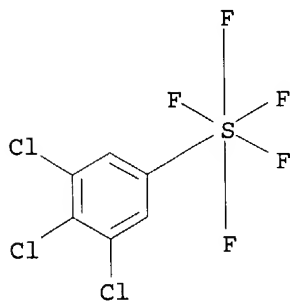
L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, (3,5-dichloro-4-fluorophenyl)pentafluoro-, (OC-6-21) - (9CI)
 MF C6 H2 Cl2 F6 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

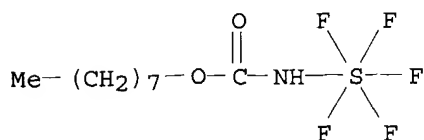
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, pentafluoro(3,4,5-trichlorophenyl)-, (OC-6-21) - (9CI)
 MF C6 H2 Cl3 F5 S



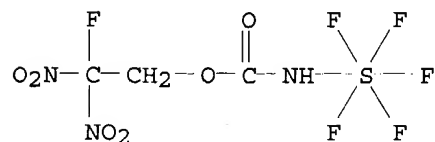
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, pentafluoro(octyl carbamato-N)-, (OC-6-21) - (9CI)
 MF C9 H18 F5 N O2 S



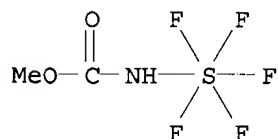
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, pentafluoro(2-fluoro-2,2-dinitroethyl carbamato)-, (OC-6-21)-
(9CI)
MF C3 H3 F6 N3 O6 S



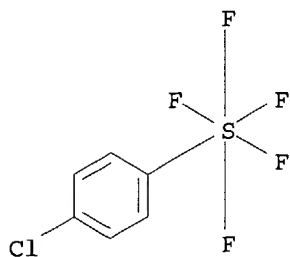
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, pentafluoro(methyl carbamato-N)-, (OC-6-21)- (9CI)
MF C2 H4 F5 N O2 S



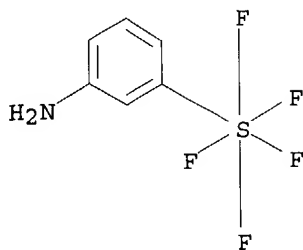
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, (4-chlorophenyl)pentafluoro-, (OC-6-21)- (9CI)
MF C6 H4 Cl F5 S



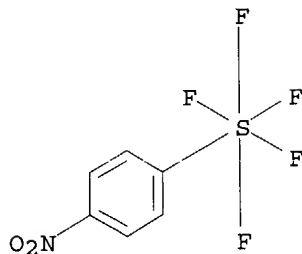
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, (3-aminophenyl)pentafluoro-, (OC-6-21)- (9CI)
MF C6 H6 F5 N S
CI COM



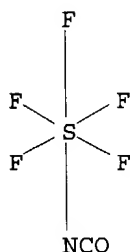
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, pentafluoro(4-nitrophenyl)-, (OC-6-21)- (9CI)
 MF C6 H4 F5 N O2 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 29 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Sulfur, pentafluoro(cyanato-κN)-, (OC-6-21)- (9CI)
 MF C F5 N O S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

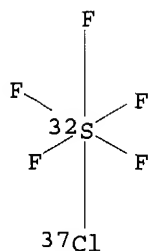
ALL ANSWERS HAVE BEEN SCANNED

=> file caplus
 COST IN U.S. DOLLARS
 FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
27.42	28.68

FILE 'CAPLUS' ENTERED AT 19:18:13 ON 18 MAY 2004

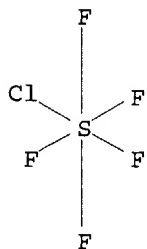
IN Sulfur chloride fluoride (32S37ClF5) (9CI)
MF Cl F5 S



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> d 10

L6 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN
RN 13780-57-9 REGISTRY
CN Sulfur chloride fluoride (SClF5), (OC-6-22)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Sulfur chloride fluoride (SClF5) (6CI, 7CI)
OTHER NAMES:
CN Chloropentafluorosulfur
CN Monochloropentafluorosulfur
CN Pentafluorosulfur chloride
CN Sulfur chloride pentafluoride
CN Sulfur monochloride pentafluoride
CN Sulfur pentafluoride chloride
MF Cl F5 S
CI COM
LC STN Files: CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX,
CHEMLIST, CSChem, DETHERM*, GMELIN*, IFICDB, IFIPAT, IFIUDB, RTECS*,
TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

168 REFERENCES IN FILE CA (1907 TO DATE)
169 REFERENCES IN FILE CAPLUS (1907 TO DATE)
32 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

6.62

37.55

FILE 'CAPLUS' ENTERED AT 19:19:48 ON 18 MAY 2004

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FILE COVERS 1907 - 18 May 2004 VOL 140 ISS 21

FILE LAST UPDATED: 17 May 2004 (20040517/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l5 and 13780-57-9

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...

Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L8 169 L7

L9 4 L5 AND L8

=> d ibib abs hitstr 1-4

L9 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:101125 CAPLUS

DOCUMENT NUMBER: 140:163466

TITLE: Stereoselective method and catalysts for incorporation of pentafluorosulfanyl substituents into aliphatic and aromatic compounds

INVENTOR(S): Dolbier, William R., Jr.; Ait-Mohand, Samia

PATENT ASSIGNEE(S): University of Florida, USA

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011422	A1	20040205	WO 2003-US24836	20030724
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
 PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
 TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
 NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
 GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2002-399044P P 20020725

US 2003-448831P P 20030221

OTHER SOURCE(S): CASREACT 140:163466

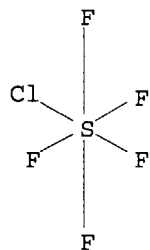
AB A convenient, regiospecific and highly stereoselective addition of SF₅Cl in high yield to a variety of alkenes (e.g., 1-heptene into 2-chloro-1-pentafluorosulfanylheptane) and alkynes is presented using organoboron (e.g., triethylboron) catalysts.

IT 13780-57-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (stereoselective method and catalysts for incorporation of pentafluorosulfanyl substituents into aliphatic and aromatic compds.)

RN 13780-57-9 CAPLUS

CN Sulfur chloride fluoride (SClF₅), (OC-6-22)- (9CI) (CA INDEX NAME)

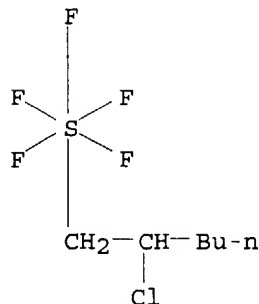


IT 334543-90-7P 334543-91-8P 334543-92-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (stereoselective method and catalysts for incorporation of pentafluorosulfanyl substituents into aliphatic and aromatic compds.)

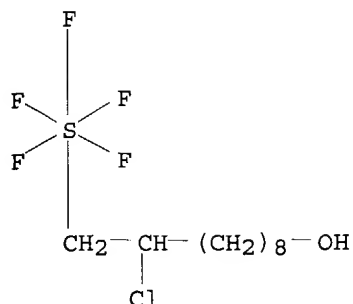
RN 334543-90-7 CAPLUS

CN Sulfur, (2-chlorohexyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)

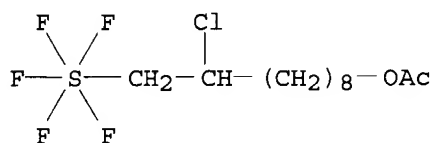


RN 334543-91-8 CAPLUS

CN Sulfur, (2-chloro-10-hydroxydecyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 334543-92-9 CAPLUS
 CN Sulfur, [10-(acetyloxy)-2-chlorodecyl]pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:266648 CAPLUS

DOCUMENT NUMBER: 139:172029

TITLE: Reactions of sulfur fluorides and benzenes in a low temperature plasma

AUTHOR(S): Klampfer, Peter; Skapin, Tomaz; Kralj, Bogdan; Zigon, Dusan; Jesih, Adolf

CORPORATE SOURCE: Jozef Stefan Inst., Ljubljana, 1111, Slovenia

SOURCE: Acta Chimica Slovenica (2003), 50(1), 29-42

CODEN: ACSLE7; ISSN: 1318-0207

PUBLISHER: Slovenian Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Sulfur fluorides SF₆, ClSF₅ and CF₃SF₅ were reacted with C₆H₆, C₆H₅Br and C₆H₅Cl in a low temperature radio-frequency plasma. Due to the stepwise dissociation of sulfur fluorides, the fluorination of benzenes was observed. In all reaction products C₆H₅SF₅ was found in minor quantities, and BrC₆H₄SF₅ or ClC₆H₄SF₅ along with numerous halogenated benzenes when C₆H₅Br or C₆H₅Cl were used as reactants, resp.

IT 5310-68-9P

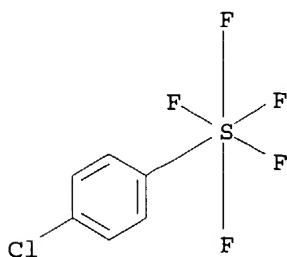
RL: MOA (Modifier or additive use); PNU (Preparation, unclassified);

PREP (Preparation); USES (Uses)

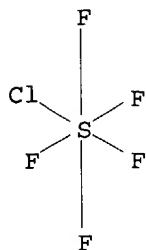
(reactions of sulfur fluorides and benzenes in a low temperature plasma)

RN 5310-68-9 CAPLUS

CN Sulfur, (4-chlorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)

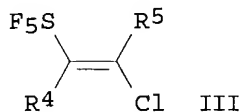
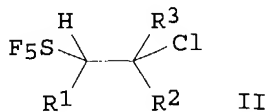
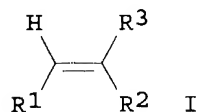


IT 13780-57-9
 RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
 (reactions of sulfur fluorides and benzenes in a low temperature plasma)
 RN 13780-57-9 CAPLUS
 CN Sulfur chloride fluoride (SClF5), (OC-6-22)- (9CI) (CA INDEX NAME)



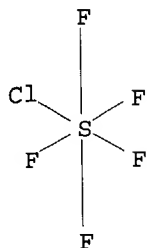
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2002:568964 CAPLUS
 DOCUMENT NUMBER: 137:247428
 TITLE: New and Convenient Method for Incorporation of Pentafluorosulfanyl (SF5) Substituents Into Aliphatic Organic Compounds
 AUTHOR(S): Mohand, Samia Aie; Dolbier, William R., Jr.
 CORPORATE SOURCE: Department of Chemistry, University of Florida, Gainesville, FL, 32611-7200, USA
 SOURCE: Organic Letters (2002), 4(17), 3013-3015
 CODEN: ORLEF7; ISSN: 1523-7060
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



AB Use of Et3B as a catalytic initiator allowed the convenient, regiospecific, and highly stereoselective addition of F5SCl to a variety of alkenes I [R1 = H, Pr, R2 = H, Et, Bu, Me3C, n-hexyl, AcO, 4-MeC6H4, R3 = H, Et, Pr; R1R2 = (CH2)4, R3 = H] and alkynes R4C.tplbond.CR5 (R4 = H, Pr; R5 = Pr, n-hexyl, Ph) giving pentafluorothio-substituted chloroalkanes II and chloroalkenes III, resp.

IT 13780-57-9, Sulfur chloride pentafluoride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (regio- and stereoselective preparation of pentafluorothio-substituted chloroalkanes and chloroalkenes via addition of F5SCl to alkenes and alkynes)
 RN 13780-57-9 CAPLUS
 CN Sulfur chloride fluoride (SClF5), (OC-6-22)- (9CI) (CA INDEX NAME)

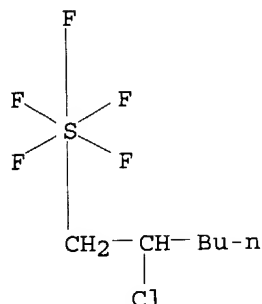


IT 334543-90-7P

RL: SPN (Synthetic preparation); **PREP (Preparation)**
(regio- and stereoselective preparation of pentafluorothio-substituted chloroalkanes and chloroalkenes via addition of F₅SCl to alkenes and alkynes)

RN 334543-90-7 CAPLUS

CN Sulfur, (2-chlorohexyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

19

THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:101278 CAPLUS

DOCUMENT NUMBER: 104:101278

TITLE: Tetrakis(pentafluorosulfanyl)hydrazine and bis(pentafluorosulfanyl)aminy radical

AUTHOR(S): Thrasher, Joseph S.; Nielsen, Jon B.

CORPORATE SOURCE: Dep. Chem., Univ. Alabama, University, AL, 35486, USA

SOURCE: Journal of the American Chemical Society (1986), 108(5), 1108-9

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The novel hydrazine (SF₅)₂NN(SF₅)₂ was prepared in ≤20% yield from the UV photolysis of SF₅NCI₂ and SF₅Cl. The compound is a colorless, crystalline

solid (m.p. 44.5-46.0°) which was characterized by IR, NMR, and mass spectra. In CCl₃F solvent in the vicinity of room temperature, (SF₅)₂NN(SF₅)₂ undergoes reversible homolytic N-N bond cleavage to give (SF₅)₂N• radicals which were identified by ESR spectroscopy. The spectrum of the radical (g = 2.0033) consists of an 11 line pattern (overlapping triplet of nonets; a(14N) = 13.5 G, a(19F) = 13.5 G) with an intensity ratio of 1:9:37:92:154:182:154:92:37:9:1 thus indicating 8 equiv (basal) fluorines.

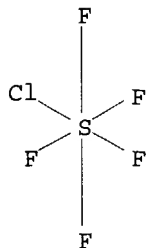
IT 13780-57-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(UV photolysis of dichloroamidopentafluorosulfur and, tetrakis(pentafluorosulfanyl)hydrazine formation in)

RN 13780-57-9 CAPLUS

CN Sulfur chloride fluoride (SClF5), (OC-6-22)- (9CI) (CA INDEX NAME)

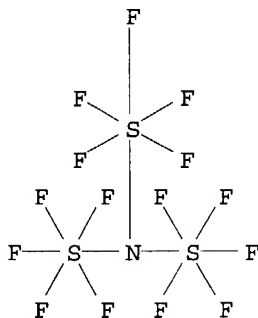


IT 100312-09-2P

RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation by UV photolysis of dichloroamidopentafluorosulfur and sulfur chloride pentafluoride and homolytic bond cleavage in trichlorofluoromethane)

RN 100312-09-2 CAPLUS

CN Nitrogen fluoride sulfide (NF15S3) (9CI) (CA INDEX NAME)



=> d his

(FILE 'HOME' ENTERED AT 19:13:11 ON 18 MAY 2004)

FILE 'REGISTRY' ENTERED AT 19:16:45 ON 18 MAY 2004

L1 0 S PENTAFLUOROSULFANYL BENZENE/CN
L2 0 S PENTAFLUOROSULFANYL BENZEN
L3 12 S PENTAFLUOROSULFANYL BENZENE
L4 29 S PENTAFLUOROSULFANYL

FILE 'CAPLUS' ENTERED AT 19:18:13 ON 18 MAY 2004

L5 32 S L4/PREP

FILE 'REGISTRY' ENTERED AT 19:19:06 ON 18 MAY 2004

L6 10 S CLF5S/MF

FILE 'CAPLUS' ENTERED AT 19:19:48 ON 18 MAY 2004

S L5 AND 13780-57-9/REG#

FILE 'REGISTRY' ENTERED AT 19:20:16 ON 18 MAY 2004

L7 1 S 13780-57-9/RN

FILE 'CAPLUS' ENTERED AT 19:20:16 ON 18 MAY 2004

L8 169 S L7
L9 4 S L5 AND L8

=> d ibib abs hitstr 15 1-32

L5 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:101125 CAPLUS

DOCUMENT NUMBER: 140:163466

TITLE: Stereoselective method and catalysts for incorporation of pentafluorosulfanyl substituents into aliphatic and aromatic compounds

INVENTOR(S): Dolbier, William R., Jr.; Ait-Mohand, Samia

PATENT ASSIGNEE(S): University of Florida, USA

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011422	A1	20040205	WO 2003-US24836	20030724
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.:

US 2002-399044P P 20020725

US 2003-448831P P 20030221

OTHER SOURCE(S): CASREACT 140:163466

AB A convenient, regiospecific and highly stereoselective addition of SF₅Cl in high yield to a variety of alkenes (e.g., 1-heptene into 2-chloro-1-pentafluorosulfanylheptane) and alkynes is presented using organoboron (e.g., triethylboron) catalysts.

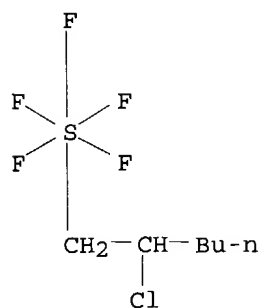
IT 334543-90-7P 334543-91-8P 334543-92-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(stereoselective method and catalysts for incorporation of pentafluorosulfanyl substituents into aliphatic and aromatic compds.)

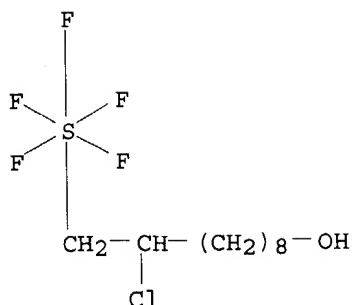
RN 334543-90-7 CAPLUS

CN Sulfur, (2-chlorohexyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)

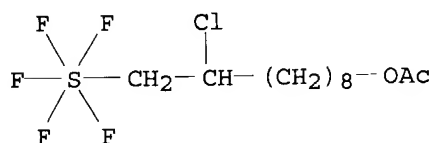


RN 334543-91-8 CAPLUS

CN Sulfur, (2-chloro-10-hydroxydecyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 334543-92-9 CAPLUS
 CN Sulfur, [10-(acetyloxy)-2-chlorodecyl]pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



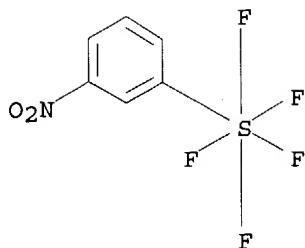
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2003:433928 CAPLUS
 DOCUMENT NUMBER: 140:163497
 TITLE: Aryl-sulfur pentafluorides: A new building-block generation for life sciences applications
 AUTHOR(S): Carlini, Filippo M.
 CORPORATE SOURCE: Miteni SpA, Milan, 20138, Italy
 SOURCE: Chimica Oggi (2003), 21(3/4), 14-16
 CODEN: CHOGDS; ISSN: 0392-839X
 PUBLISHER: TeknoScienze
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English

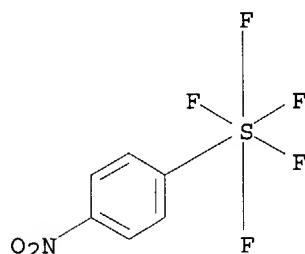
AB A review. The route to synthesizing SF₅-benzene derivs. based on the use of AgF₂ as a fluorinating agent is described. The chemical stability of the synthesized SF₅-benzene to several common synthetic transformations and to hydrolysis under basic and acidic conditions are connected to the electronic effect and conformational factors that finally inhibit fluoride elimination on the aryl-SF₅ materials. These materials have low surface energy, high chemical resistance, high thermal stability, high electronegativity, high hydrophobicity and high dielec. constant

IT 2613-26-5P 2613-27-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); **PREP** (Preparation); RACT (Reactant or reagent)
 (aryl-sulfur pentafluorides as new building-block generation for life sciences applications)

RN 2613-26-5 CAPLUS
 CN Sulfur, pentafluoro(3-nitrophenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 2613-27-6 CAPLUS
 CN Sulfur, pentafluoro(4-nitrophenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:266648 CAPLUS

DOCUMENT NUMBER: 139:172029

TITLE: Reactions of sulfur fluorides and benzenes in a low temperature plasma

AUTHOR(S): Klampfer, Peter; Skapin, Tomaz; Kralj, Bogdan; Zigon, Dusan; Jesih, Adolf

CORPORATE SOURCE: Jozef Stefan Inst., Ljubljana, 1111, Slovenia

SOURCE: Acta Chimica Slovenica (2003), 50(1), 29-42

CODEN: ACSLE7; ISSN: 1318-0207

PUBLISHER: Slovenian Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Sulfur fluorides SF₆, ClSF₅ and CF₃SF₅ were reacted with C₆H₆, C₆H₅Br and C₆H₅Cl in a low temperature radio-frequency plasma. Due to the stepwise dissociation of sulfur fluorides, the fluorination of benzenes was observed. In all reaction products C₆H₅SF₅ was found in minor quantities, and BrC₆H₄SF₅ or ClC₆H₄SF₅ along with numerous halogenated benzenes when C₆H₅Br or C₆H₅Cl were used as reactants, resp.

IT 5310-68-9P

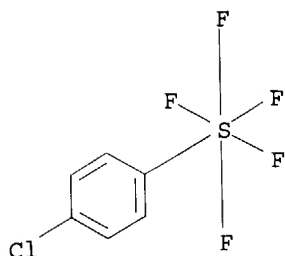
RL: MOA (Modifier or additive use); PNU (Preparation, unclassified);

PREP (Preparation); USES (Uses)

(reactions of sulfur fluorides and benzenes in a low temperature plasma)

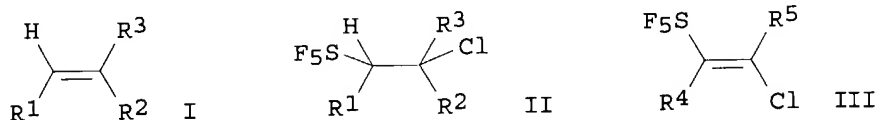
RN 5310-68-9 CAPLUS

CN Sulfur, (4-chlorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2002:568964 CAPLUS
 DOCUMENT NUMBER: 137:247428
 TITLE: New and Convenient Method for Incorporation of Pentafluorosulfanyl (SF5) Substituents Into Aliphatic Organic Compounds
 AUTHOR(S): Mohand, Samia Aie; Dolbier, William R., Jr.
 CORPORATE SOURCE: Department of Chemistry, University of Florida, Gainesville, FL, 32611-7200, USA
 SOURCE: Organic Letters (2002), 4(17), 3013-3015
 CODEN: ORLEF7; ISSN: 1523-7060
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



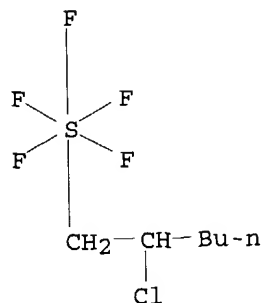
AB Use of Et3B as a catalytic initiator allowed the convenient, regioselective, and highly stereoselective addition of F5SCl to a variety of alkenes I [R1 = H, Pr, R2 = H, Et, Bu, Me3C, n-hexyl, AcO, 4-MeC6H4, R3 = H, Et, Pr; R1R2 = (CH2)4, R3 = H] and alkynes R4C.tplbond.CR5 (R4 = H, Pr; R5 = Pr, n-hexyl, Ph) giving pentafluorothio-substituted chloroalkanes II and chloroalkenes III, resp.

IT 334543-90-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (regio- and stereoselective preparation of pentafluorothio-substituted chloroalkanes and chloroalkenes via addition of F5SCl to alkenes and alkynes)

RN 334543-90-7 CAPLUS

CN Sulfur, (2-chlorohexyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:896386 CAPLUS

DOCUMENT NUMBER: 136:340254

TITLE: Elemental fluorine. Part 13. Gas-liquid thin film

microreactors for selective direct fluorination

AUTHOR(S): Chambers, Richard D.; Holling, Darren; Spink, Robert C. H.; Sandford, Graham

CORPORATE SOURCE: Department of Chemistry, University of Durham, Durham, DH1 3LE, UK

SOURCE: Lab on a Chip (2001), 1(2), 132-137

CODEN: LCAHAM; ISSN: 1473-0197

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:340254

AB Continuous flow gas-liquid thin film microreactors have been effectively used for the selective fluorination of a range of 1,3-dicarbonyl and aromatic substrates and, addnl., the conversion of aromatic disulfides to the corresponding sulfur pentafluorides. Scale-up was demonstrated by the application of a three channel microreactor device fabricated by replication of a single channel system.

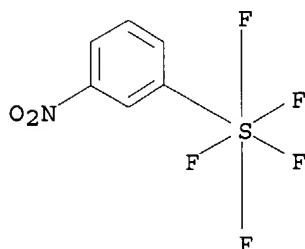
IT 2613-26-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(gas-liquid thin film microreactors for selective direct fluorination)

RN 2613-26-5 CAPLUS

CN Sulfur, pentafluoro(3-nitrophenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:137610 CAPLUS

DOCUMENT NUMBER: 134:295889

TITLE: New SF₅-long chain carbon systems

AUTHOR(S): Winter, R.; Nixon, P. G.; Gard, G. L.; Radford, D. H.; Holcomb, N. R.; Grainger, D. W.

CORPORATE SOURCE: Department of Chemistry, Portland State University, Portland, OR, 97207-0751, USA

SOURCE: Journal of Fluorine Chemistry (2001), 107(1), 23-30

CODEN: JFLCAR; ISSN: 0022-1139

PUBLISHER: Elsevier Science S.A.

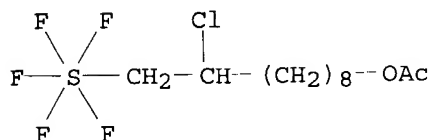
DOCUMENT TYPE: Journal

LANGUAGE: English

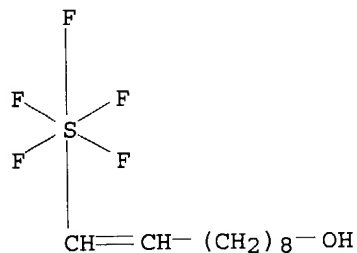
OTHER SOURCE(S): CASREACT 134:295889

AB A new SF₅-terminated perfluoroalkyl thiol, F₅S(CF₂)₆CH₂CH₂SH, and a sym. SF₅-terminated dialkyl disulfide, [F₅SCHCH(CH₂)₈S]₂, were synthesized from SF₅-terminated precursors. The chemical employed in the preparation of the disulfide encompasses high yield pathways for the preparation of new SF₅-long chain derivs.

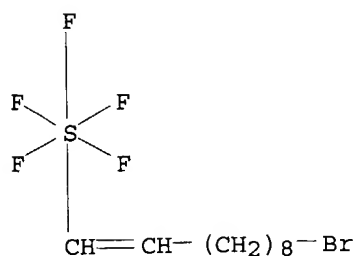
IT 334543-92-9P, 9-Chloro-10-(pentafluorosulfanyl)-1-decyl acetate
 334543-93-0P, 10-Pentafluorosulfanyl-9-decen-1-ol
 334543-94-1P, 1-Bromo-10-pentafluorosulfanyl-9-decene
 RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**
 (**Preparation**); RACT (Reactant or reagent)
 (preparation of pentafluorosulfanyl derivs. of polyfluorinated alkanethiols)
 RN 334543-92-9 CAPLUS
 CN Sulfur, [10-(acetyloxy)-2-chlorodecyl]pentafluoro-, (OC-6-21)- (9CI) (CA
 INDEX NAME)



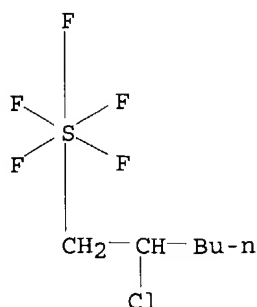
RN 334543-93-0 CAPLUS
 CN Sulfur, pentafluoro(10-hydroxy-1-decenyl)-, (OC-6-21)- (9CI) (CA INDEX
 NAME)



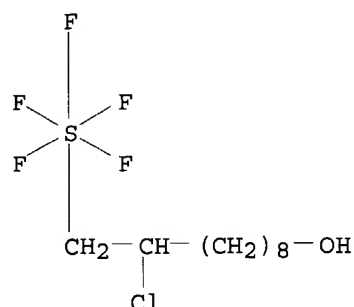
RN 334543-94-1 CAPLUS
 CN Sulfur, (10-bromo-1-decenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX
 NAME)



IT 334543-90-7P, 2-Chloro-1-(pentafluorosulfanyl)hexane
 334543-91-8P, 9-Chloro-10-(pentafluorosulfanyl)-1-decanol
 RL: SPN (Synthetic preparation); **PREP** (**Preparation**)
 (preparation of pentafluorosulfanyl derivs. of polyfluorinated alkanethiols)
 RN 334543-90-7 CAPLUS
 CN Sulfur, (2-chlorohexyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 334543-91-8 CAPLUS
 CN Sulfur, (2-chloro-10-hydroxydecyl)pentafluoro-, (OC-6-21)- (9CI) (CA
 INDEX NAME)



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:373669 CAPLUS

DOCUMENT NUMBER: 133:163930

TITLE: A new method for the synthesis of aromatic sulfur
 pentafluorides and studies of the stability of the
 sulfur pentafluoride group in common synthetic
 transformations

AUTHOR(S): Bowden, Roy D.; Comina, Paul J.; Greenhall, Martin P.;
 Kariuki, Benson M.; Loveday, Amanda; Philp, Douglas

CORPORATE SOURCE: School of Chemistry, University of Birmingham,
 Birmingham, B15 2TT, UK

SOURCE: Tetrahedron (2000), 56(21), 3399-3408

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:163930

AB A new synthesis of aromatic sulfur pentafluoride compds. is described.
 Subsequent elaboration of the aromatic rings in the presence of the sulfur
 pentafluoride group is also discussed for a variety of common synthetic
 methods. This paper also describes ab initio electronic structure calcns.
 of 3- and 4-aminophenylsulfur pentafluoride, compared with 3- and
 4-aminobenzotrifluoride, and presents X-ray crystal structures of two
 aromatic sulfur pentafluoride derivs.

IT 2613-26-5P 2613-27-6P 2993-22-8P

2993-24-0P

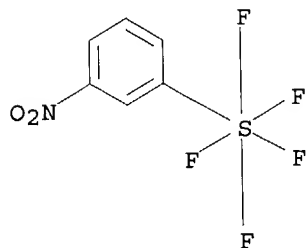
RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation and reactions of aromatic sulfur pentafluorides)

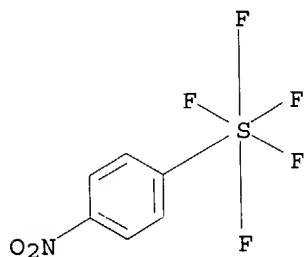
RN 2613-26-5 CAPLUS

CN Sulfur, pentafluoro(3-nitrophenyl)-, (OC-6-21) - (9CI) (CA INDEX NAME)



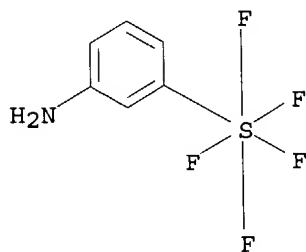
RN 2613-27-6 CAPLUS

CN Sulfur, pentafluoro(4-nitrophenyl)-, (OC-6-21) - (9CI) (CA INDEX NAME)



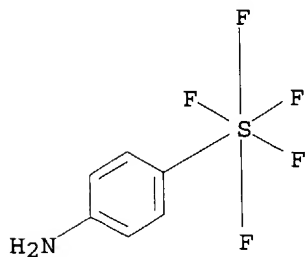
RN 2993-22-8 CAPLUS

CN Sulfur, (3-aminophenyl)pentafluoro-, (OC-6-21) - (9CI) (CA INDEX NAME)



RN 2993-24-0 CAPLUS

CN Sulfur, (4-aminophenyl)pentafluoro-, (OC-6-21) - (9CI) (CA INDEX NAME)



REFERENCE COUNT:

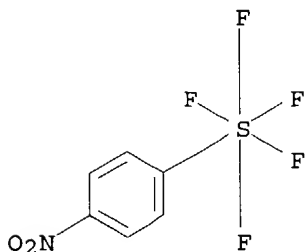
37

THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:311136 CAPLUS

DOCUMENT NUMBER: 130:326798
 TITLE: A method for performing a chemical reaction
 INVENTOR(S): Harston, Paul; Atherton, Malcolm John; Holmes, Robert
 G. G.; Chambers, Richard Dickinson; Spink, Robert
 PATENT ASSIGNEE(S): British Nuclear Fuels PLC, UK
 SOURCE: PCT Int. Appl., 22 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9922857	A1	19990514	WO 1998-GB3285	19981105
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
ZA 9810107	A	19990416	ZA 1998-10107	19981105
CA 2304550	AA	19990514	CA 1998-2304550	19981105
AU 9911630	A1	19990524	AU 1999-11630	19981105
EP 1028801	A1	20000823	EP 1998-954568	19981105
R: DE, FR, GB				
JP 2001521816	T2	20011113	JP 2000-518778	19981105
PRIORITY APPLN. INFO.:			GB 1997-23260	A 19971105
			WO 1998-GB3285	W 19981105
AB	A method is provided for carrying out a chemical reaction between at least two fluids. The method includes providing resp. flow paths for the at least two fluids, where flow paths communicate with each other in a region in which the at least two fluids may contact each other, and flowing the at least two fluids along the flow paths such that in the region at least two fluids contact each other and a chemical reaction occurs between them; the region has a width perpendicular to the direction of flow in the range 10-10,000 µm. It was found that using a so-called "microreactor", that is a reactor having dimensions perpendicular to the flow direction of <10,000 µm, according to the method, improved control over a fluid chemical reaction can be achieved, which can result in significant improvements in reaction product yield and/or purity as well as other benefits. The method was found to be particularly beneficial for fluorination reactions.			
IT	2613-27-6P RL: PNU (Preparation, unclassified); PREP (Preparation) (in acetonitrile; system for performing chemical reactions, especially fluorination)			
RN	2613-27-6 CAPLUS			
CN	Sulfur, pentafluoro(4-nitrophenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)			



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:82613 CAPLUS

DOCUMENT NUMBER: 128:180468

TITLE: Oxidative addition and isomerization reactions. The synthesis of cis- and trans-ArSF₄Cl and cis- and trans-PhTeF₄Cl

AUTHOR(S): Ou, Xiaobo; Bernard, Guy M.; Janzen, Alexander F.
CORPORATE SOURCE: Dep. Chem., Univ. Manitoba, Winnipeg, MB, R3T 2N2, Can.

SOURCE: Canadian Journal of Chemistry (1997), 75(12), 1878-1884

CODEN: CJCHAG; ISSN: 0008-4042

PUBLISHER: National Research Council of Canada

DOCUMENT TYPE: Journal

LANGUAGE: English

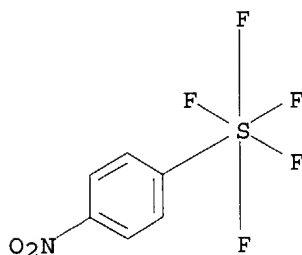
AB The stereoselective synthesis and isomerization of cis- and trans-ArSF₄Cl is described, where Ar = Ph, p-MeC₆H₄, and p-O₂NC₆H₄. Also briefly described is the synthesis of ArSF₅, cis- and trans-PhTeF₄Cl, and PhTeF₅. The oxidative halogenating reagent is a mixture of XeF₂ and Cl₂, and suitable starting compds. are ArSSAr, ArSF₃, and PhTeTePh. Products were characterized by ¹⁹F, ¹³C, and ¹²⁵Te NMR spectroscopy, and by the ³⁵Cl/³⁷Cl and ³⁴S/³²S isotope effects on the ¹⁹F NMR chemical shifts. A mechanism of oxidative halogenation is proposed to account for the stereoselective synthesis of cis- and trans-ArSF₄Cl. Ab initio calcns. of optimized geometries of anionic and radical intermediates, i.e., PhSF₃X⁻ and PhSF₃X[•] (X = F, Cl), were carried out with the aid of the GAUSSIAN 92 program.

IT 2613-27-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 2613-27-6 CAPLUS

CN Sulfur, pentafluoro(4-nitrophenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:651301 CAPLUS

DOCUMENT NUMBER: 127:307376

TITLE: Preparation of pentafluorosulfanylphenyl- and -benzoylisoxazoles and analogs as herbicides

INVENTOR(S): Hawkins, David William

PATENT ASSIGNEE(S): Rhone-Poulenc Agriculture Ltd., UK

SOURCE: Ger. Offen., 31 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

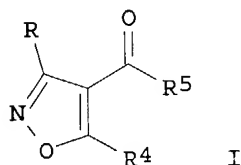
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19711953	A1	19970925	DE 1997-19711953	19970321
GB 2311288	A1	19970924	GB 1997-3993	19970226
GB 2311288	B2	19981007		
FR 2746393	A1	19970926	FR 1997-3645	19970320
BR 9700435	A	19980825	BR 1997-435	19970320
CH 692949	A	20021231	CH 1997-677	19970320
JP 10036206	A2	19980210	JP 1997-68821	19970321
US 5849928	A	19981215	US 1997-822926	19970321
US 6013805	A	20000111	US 1998-162062	19980929
US 6140528	A	20001031	US 1999-444461	19991122
PRIORITY APPLN. INFO.:			GB 1996-6015	A 19960322
			US 1997-822926	A3 19970321
			US 1998-162062	A3 19980929

OTHER SOURCE(S): MARPAT 127:307376
GI

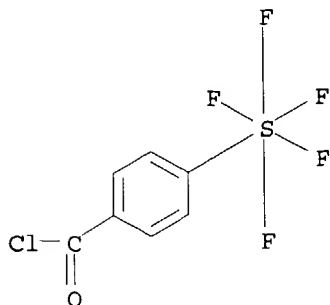


AB Title compds. [I or R1COCH(CN)COZSF5; R = H or CO2R3; R1 = (halo)alkyl or (un)substituted cycloalkyl; R3 = (un)substituted alkyl or -phenyl; 1 of R4,R5 = R1 and the other = ZSF5; Z = (un)substituted phenylene] were prepared. Thus, R1COCH2CO2CMe3-Mg enolate (R1 = cyclopropyl) was condensed with 4-(F5S)C6H4COCl (preparation given) and the product condensed with HC(OEt)3 to give R1COC(:CHOEt)COC6H4(SF5)-4 (R1 = cyclopropyl) which was cyclocondensed with HONH2.HCl to give I [R = H, R4 = C6H4(SF5)-4, R5 = cyclopropyl]. Data for biol. activity of title compds. were given.

IT **197384-98-8P**, 4-Pentafluorosulfanylbenzoyl chloride
 RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**
 (**Preparation**); RACT (Reactant or reagent)
 (preparation of pentafluorosulfanylphenyl- and -benzoylisoxazoles and analogs as herbicides)

RN 197384-98-8 CAPLUS

CN Sulfur, [4-(chlorocarbonyl)phenyl]pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



TITLE: Preparation of organosulfur pentafluorides by the fluorination of organic disulfides
 INVENTOR(S): Bowden, Roy Dennis; Greenhall, Martin Paul; Moilliet, John Stewart; Thomson, Julie
 PATENT ASSIGNEE(S): British Nuclear Fuels Plc, UK; Bowden, Roy Dennis; Greenhall, Martin Paul; Moilliet, John Stewart; Thomson, Julie
 SOURCE: PCT Int. Appl., 16 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9705106	A1	19970213	WO 1996-GB1829	19960726
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
CA 2200734	AA	19970213	CA 1996-2200734	19960726
AU 9667456	A1	19970226	AU 1996-67456	19960726
EP 784614	A1	19970723	EP 1996-927750	19960726
EP 784614	B1	19991006		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
CN 1165512	A	19971119	CN 1996-191136	19960726
CN 1084733	B	20020515		
JP 10507206	T2	19980714	JP 1996-507357	19960726
ES 2140119	T3	20000216	ES 1996-927750	19960726
RU 2166498	C2	20010510	RU 1997-107003	19960726
ZA 9606427	A	19970219	ZA 1996-6427	19960729
NO 9701412	A	19970325	NO 1997-1412	19970325
US 5741935	A	19980421	US 1997-809771	19970328
PRIORITY APPLN. INFO.:			GB 1995-15599	A 19950729
			WO 1996-GB1829	W 19960726

OTHER SOURCE(S): CASREACT 126:199340; MARPAT 126:199340

AB The title compds. R1SF5 (R1 = aryl, heteroaryl, aliphatic, alicyclic), useful as agrochem. and pharmaceutical intermediates (no data), are prepared in high yield by elemental fluorine fluorination of disulfides R1SSR2 (R1 = R2) in an inert solvent. Thus, bis(3-nitrophenyl) disulfide was dissolved in MeCN and fluorinated with F2, producing (3-nitrophenyl)sulfur pentafluoride in 38.5% yield.

IT **2613-26-5P**, 3-Nitrophenylsulfur pentafluoride **2613-27-6P**

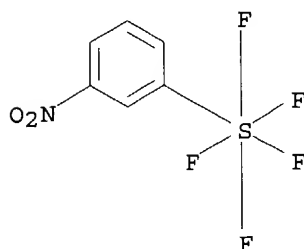
, 4-Nitrophenylsulfur pentafluoride

RL: SPN (Synthetic preparation); **PREP (Preparation)**

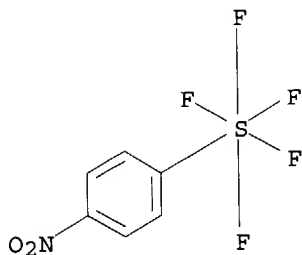
(preparation of organosulfur pentafluorides by the fluorination of organic disulfides)

RN 2613-26-5 CAPLUS

CN Sulfur, pentafluoro(3-nitrophenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



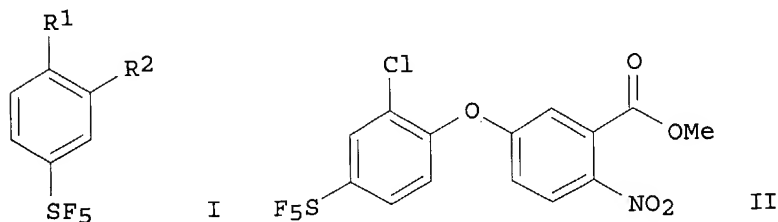
RN 2613-27-6 CAPLUS
CN Sulfur, pentafluoro(4-nitrophenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:682557 CAPLUS
DOCUMENT NUMBER: 123:82948
TITLE: Herbicidal compounds having a pentafluorosulfanyl group
INVENTOR(S): Barton, John Edward Duncan; Mitchell, Glynn
PATENT ASSIGNEE(S): Zeneca Ltd., UK
SOURCE: Brit. UK Pat. Appl., 34 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2276379	A1	19940928	GB 1994-2353	19940208
PRIORITY APPLN. INFO.:			GB 1993-6183	19930325
OTHER SOURCE(S):	MARPAT 123:82948			

GI



AB Herbicidal dinitroaniline, arylurea, 2-phenylpyridazin-3-one, di-Ph ether, phenoxyphenoxypropionate, heteroaryloxyphenoxypropionate, arylanilide, or substituted phenylpyrrolidone derivs., having a Ph or pyridyl group which carries a pentafluorosulphanyl (SF5) group, are disclosed, along with novel intermediates I [R1, R2 = halo; or R1 = amino and R2 = halo; or R1 = halo and R2 = NO2]. For example, 4-(F5S)C6H4NO2 underwent Fe-HCl reduction of the nitro group to amino, ring chlorination with N-chlorosuccinimide, and diazotization/chlorination of the amino group, to give I (R1 = R2 = Cl). This underwent phenolic etherification with 3-HOC6H4CO2H, followed by esterification of the acid function with SOCl2 and MeOH, and nitration with KNO3 and H2SO4, to give title compound II. At 125 g/ha postemergence, II gave 90-100% control of several weeds, including Chenopodium album, Amaranthus retroflexus, Ipomoea hederacea, and Abutilon theophrasti.

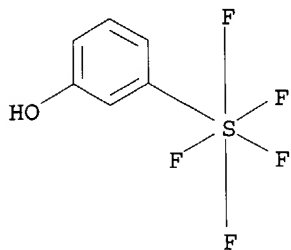
IT **672-31-1P**, 3-(Pentafluorosulfanyl)phenol **2993-22-8P**,
3-(Pentafluorosulfanyl)aniline **2993-24-0P**, 4-

Amino(pentafluorosulfanyl)benzene 5310-68-9P,
 4-Chloro(pentafluorosulfanyl)benzene 149757-20-0P,
 3,5-Dichloro-4-amino(pentafluorosulfanyl)benzene 159727-21-6P,
 3,4,5-Trichloro(pentafluorosulfanyl)benzene 159727-23-8P,
 3,5-Dichloro-4-fluoro(pentafluorosulfanyl)benzene 165114-85-2P,
 4-Amino-3-chloro(pentafluorosulfanyl)benzene 165114-86-3P,
 3,4-Dichloro(pentafluorosulfanyl)benzene 165114-87-4P,
 4-Chloro-3-nitro(pentafluorosulfanyl)benzene 165114-88-5P,
 2-[3-(Pentafluorosulfanyl)phenoxy]nicotinic acid
 RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**
 (**Preparation**); RACT (Reactant or reagent)
 (intermediate; preparation of herbicides containing pentafluorosulfanyl

group)

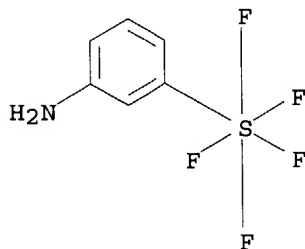
RN 672-31-1 CAPLUS

CN Sulfur, pentafluoro(3-hydroxyphenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



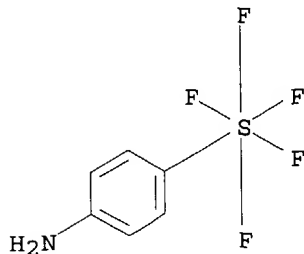
RN 2993-22-8 CAPLUS

CN Sulfur, (3-aminophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



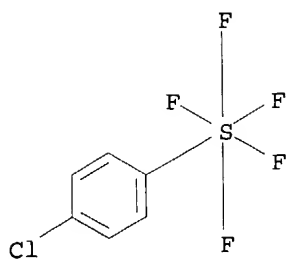
RN 2993-24-0 CAPLUS

CN Sulfur, (4-aminophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)

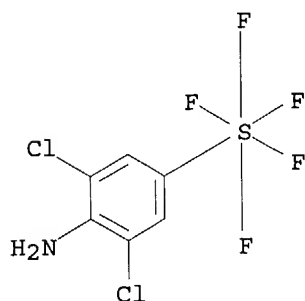


RN 5310-68-9 CAPLUS

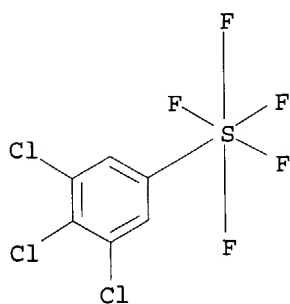
CN Sulfur, (4-chlorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



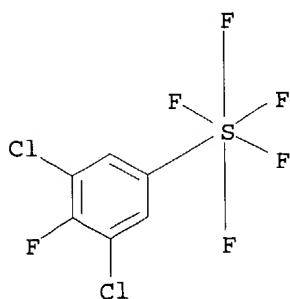
RN 149757-20-0 CAPLUS
 CN Sulfur, (4-amino-3,5-dichlorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



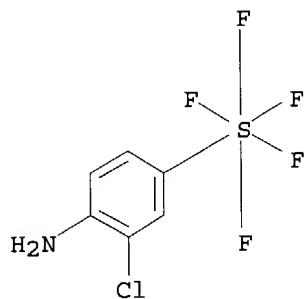
RN 159727-21-6 CAPLUS
 CN Sulfur, pentafluoro(3,4,5-trichlorophenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



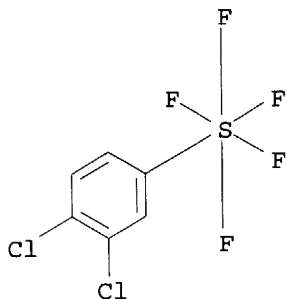
RN 159727-23-8 CAPLUS
 CN Sulfur, (3,5-dichloro-4-fluorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



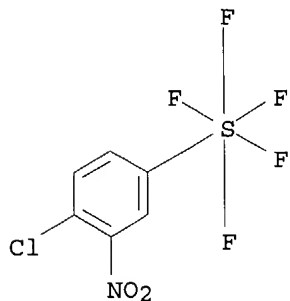
RN 165114-85-2 CAPLUS
 CN Sulfur, (4-amino-3-chlorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



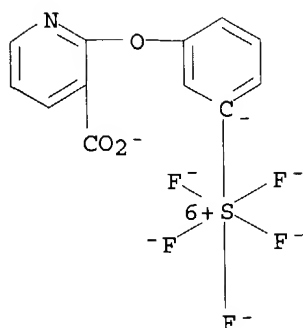
RN 165114-86-3 CAPLUS
 CN Sulfur, (3,4-dichlorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 165114-87-4 CAPLUS
 CN Sulfur, (4-chloro-3-nitrophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)

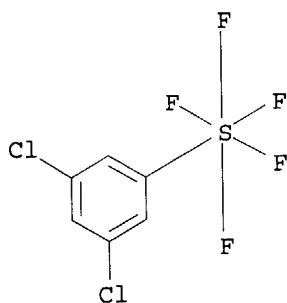


RN 165114-88-5 CAPLUS
 CN Sulfate(1-), [3-[(3-carboxylato-2-pyridinyl)oxy]phenyl]pentafluoro-, hydrogen, (OC-6-21)- (9CI) (CA INDEX NAME)

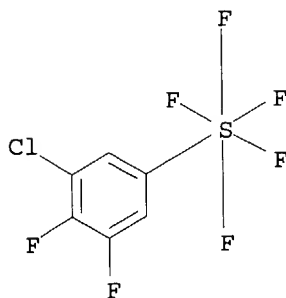


● H⁺

IT 159727-22-7P, 3,5-Dichloro(pentafluorosulfanyl)benzene
 159727-24-9P, 3-Chloro-4,5-difluoro(pentafluorosulfanyl)benzene
 RL: BYP (Byproduct); **PREP (Preparation)**
 (preparation of herbicides containing pentafluorosulfanyl group)
 RN 159727-22-7 CAPLUS
 CN Sulfur, (3,5-dichlorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



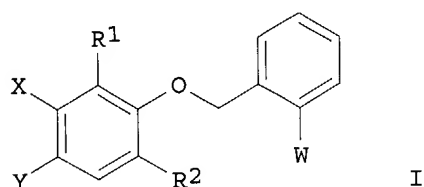
RN 159727-24-9 CAPLUS
 CN Sulfur, (3-chloro-4,5-difluorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1995:380212 CAPLUS
 DOCUMENT NUMBER: 122:160277
 TITLE: Fungicidal compounds containing a
 phenylsulfurpentafluoride group

INVENTOR(S): Worthington, Paul Anthony; Streeting, Ian Thomas
 PATENT ASSIGNEE(S): Zeneca Ltd., UK
 SOURCE: Brit. UK Pat. Appl., 19 pp.
 CODEN: BAXXDU
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2276381	A1	19940928	GB 1994-2485	19940209
PRIORITY APPLN. INFO.:			GB 1993-6235	19930325
OTHER SOURCE(S):	MARPAT 122:160277			
GI				

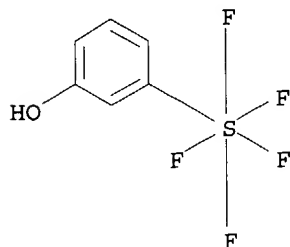


AB Title compds. I and stereoisomers [wherein W = C(:CHOMe)CO₂Me, C(:CHOMe)CONR'R'', C(:NOMe)CO₂Me, C(:NOMe)CONR'R''; R', R'' = (independently) H or C1-4 alkyl; and either: (i) X = H, Y = SF₅, and R₁ and R₂ = (independently) H, halo or cyano; or (ii) X = SF₅, Y = H, and R₁ = R₂ = H] are useful as fungicides. For example, 3-(F₅S)C₆H₄NH₂ was diazotized and hydrolyzed in hot aqueous H₂SO₄ to give 43% 3-(F₅S)C₆H₄OH, which was etherified with (E)-Me 3-methoxy-2-[2-(bromomethyl)phenyl]propenoate using K₂CO₃ in DMF to give 43% (E)-I [W = C(:CHOMe)CO₂Me, X = SF₅, Y = R₁ = R₂ = H] (II). In tests at 100 ppm (foliar spray), II gave complete protection against several fungi including Septoria nodorum, Venturia inaequalis, and Phytophthora infestans lycopersici. The 4-pentafluorosulfanyl analog of II (i.e. with X = H, Y = SF₅) was similarly prepared

IT 672-31-1P, 3-Hydroxyphenylsulfur pentafluoride
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of fungicides containing phenylsulfurpentafluoride group)

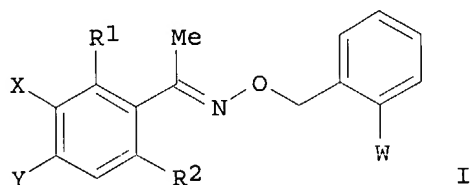
RN 672-31-1 CAPLUS

CN Sulfur, pentafluoro(3-hydroxyphenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



DOCUMENT NUMBER: 122:55725
 TITLE: Fungicidal and insecticidal compounds containing a phenylsulfurpentafluoride group
 INVENTOR(S): Crowley, Patrick Jelf; Bartholmew, David
 PATENT ASSIGNEE(S): Zeneca Ltd., UK
 SOURCE: Brit. UK Pat. Appl., 21 pp.
 CODEN: BAXXDU
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

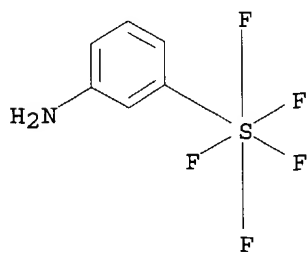
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2276380	A1	19940928	GB 1994-2477	19940209
PRIORITY APPLN. INFO.:			GB 1993-6182	19930325
OTHER SOURCE(S):	MARPAT 122:55725			
GI				



AB Title compds. I and stereoisomers [wherein W = C(:CHOMe)CO₂Me, C(:CHOMe)CONR'R'', C(:NOMe)CO₂Me, C(:NOMe)CONR'R''; R', R'' = (independently) H or C1-4 alkyl; and either: (i) X = H, Y = SF₅, and R₁ and R₂ = (independently) H, halo or cyano; or (ii) X = SF₅, Y = H, and R₁ = R₂ = H] are useful as fungicides and insecticides. For example, 3-(F₅S)C₆H₄NO₂ underwent a sequence of reduction with Fe-HCl (33%), diazotization/bromination of the formed amine (79%), Pd-catalyzed ethoxyvinylolation of the resulting bromide (58%), and acid hydrolysis (94%), to give 3-(F₅S)C₆H₄COMe. This underwent oximation by (E)-Me 2-[2-(aminooxymethyl)phenyl]-3-methoxypropenoate (preparation given) to give 36% (E)-I [W = C(:CHOMe)CO₂Me, X = SF₅, Y = R₁ = R₂ = H] (II). In tests at 100 ppm (foliar spray), II gave complete protection against several fungi including Erysiphe graminis tritici, Venturia inaequalis, and Plasmopara viticola. Insecticidal and acaricidal uses are also claimed (no data).

IT **2993-22-8P**, 3-Aminophenylsulfur pentafluoride
 RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**
 (**Preparation**); RACT (Reactant or reagent)
 (intermediate; preparation of phenylsulfurpentafluoride-containing fungicides and insecticides)

RN 2993-22-8 CAPLUS
 CN Sulfur, (3-aminophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1995:255415 CAPLUS
 DOCUMENT NUMBER: 122:58831
 TITLE: Process for the preparation of aryl- and heteroarylsulphurpentafluorides
 INVENTOR(S): Williams, Alfred Glyn; Foster, Nicholas Russell
 PATENT ASSIGNEE(S): Zeneca Ltd., UK
 SOURCE: PCT Int. Appl., 17 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9422817	A1	19941013	WO 1994-GB740	19940407
W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LV, MD, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, TJ, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9464343	A1	19941024	AU 1994-64343	19940407
EP 693056	A1	19960124	EP 1994-912026	19940407
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08508476	T2	19960910	JP 1994-521880	19940407
PRIORITY APPLN. INFO.:				
			GB 1993-7245	19930407
			WO 1994-GB740	19940407

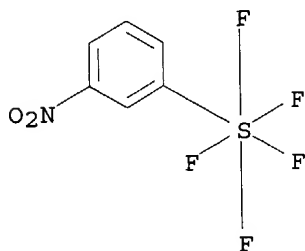
AB The process comprises reacting an aryldisulfide or heteroaryldisulfide with AgF₂ under anhydrous conditions at a temperature of ≥100° and in the presence of a non-aqueous solvent whose b.p. is at or above the reaction temperature, said solvent being substantially stable under the reaction conditions. Reacting 4-nitrophenyldisulfide with AgF₂ in octane at 122-124° gave 4-nitrobenzenesulphurpentafluoride with 78% yield.

IT 2613-26-5P 2613-27-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (process for the preparation of aryl- and heteroarylsulphurpentafluorides)

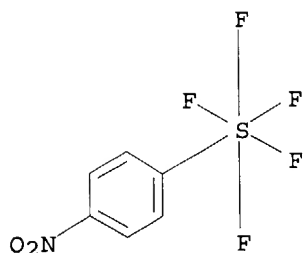
RN 2613-26-5 CAPLUS

CN Sulfur, pentafluoro(3-nitrophenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



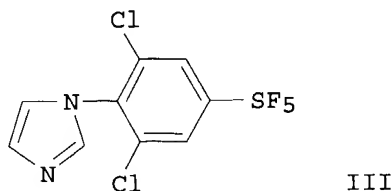
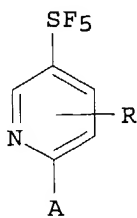
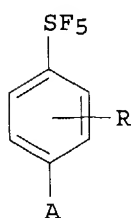
RN 2613-27-6 CAPLUS

CN Sulfur, pentafluoro(4-nitrophenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 16 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1995:252493 CAPLUS
 DOCUMENT NUMBER: 122:31333
 TITLE: Acaricidal and insecticidal pentafluoro(phenyl)sulfur or pentafluoro(pyridinyl)sulfur compounds
 INVENTOR(S): Salmon, Roger; Pearson, David Philip John; Parry, David Rees; Kozakiewicz, Anthony Marian
 PATENT ASSIGNEE(S): Zeneca Ltd., UK
 SOURCE: PCT Int. Appl., 60 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9421606	A1	19940929	WO 1994-GB612	19940324
W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9462872	A1	19941011	AU 1994-62872	19940324
PRIORITY APPLN. INFO.:			GB 1993-6184	19930325
			WO 1994-GB612	19940324
OTHER SOURCE(S):		MARPAT 122:31333		
GI				



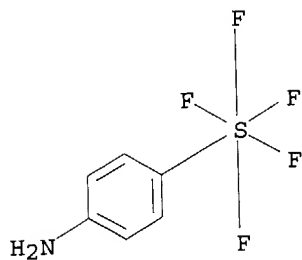
AB Substituted pentafluoro(phenyl)sulfur compds. I [R = H, substituents; A = (un)substituted pyrazolyl, imidazolyl, pyrimidinyl, pyridinyl, etc.] and pentafluoro(pyridinyl)sulfur compds. II (same R, A) were disclosed as insecticides and acaricides. An example compound, [3,5-dichloro-4-(1H-imidazol-1-yl)phenyl]pentafluorosulfur (III) was prepared Synthetic intermediates for I and II were claimed.

IT 2993-24-0P 149757-20-0P 159727-22-7P
 159727-23-8P 159727-24-9P

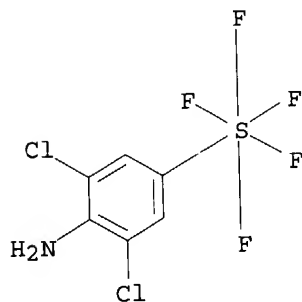
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pentafluoro(phenyl)sulfur or pentafluoro(pyridinyl)sulfur insecticide)

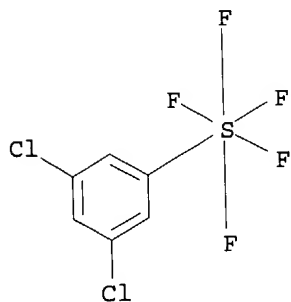
RN 2993-24-0 CAPLUS
CN Sulfur, (4-aminophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



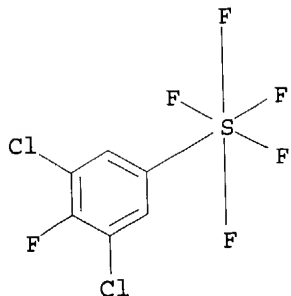
RN 149757-20-0 CAPLUS
CN Sulfur, (4-amino-3,5-dichlorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



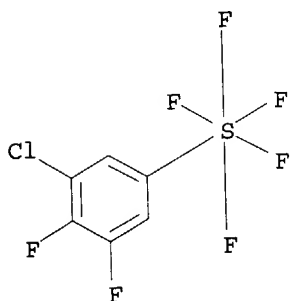
RN 159727-22-7 CAPLUS
CN Sulfur, (3,5-dichlorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 159727-23-8 CAPLUS
CN Sulfur, (3,5-dichloro-4-fluorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



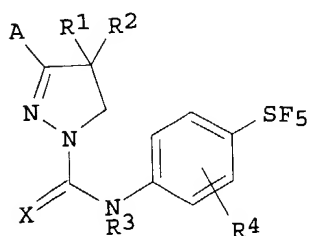
RN 159727-24-9 CAPLUS
 CN Sulfur, (3-chloro-4,5-difluorophenyl)pentafluoro-, (OC-6-21) - (9CI) (CA
 INDEX NAME)



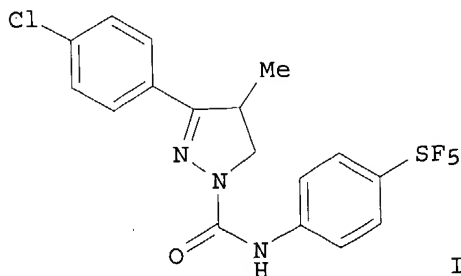
L5 ANSWER 17 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1995:248790 CAPLUS
 DOCUMENT NUMBER: 122:31516
 TITLE: Dihydropyrazole compounds useful as insecticides
 INVENTOR(S): Salmon, Rodger
 PATENT ASSIGNEE(S): Zeneca Ltd., UK
 SOURCE: Brit. UK Pat. Appl., 14 pp.
 CODEN: BAXXDU
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2276382	A1	19940928	GB 1994-3942	19940301
			GB 1993-6223	19930325

PRIORITY APPLN. INFO.:
 OTHER SOURCE(S): MARPAT 122:31516
 GI



I

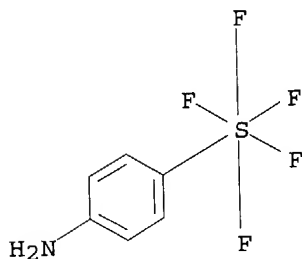


II

AB Dihydropyrazoles I [X = O or S; A = (un)substituted aryl; R1 = H, (un)substituted alkyl, (un)substituted aryl, alkoxycarbonyl; R2 = (un)substituted alkyl; R3 = H, acyl, (un)substituted alkyl, alkoxycarbonyl, S(O)nR5, NR6R7; R4 = H or 1 to 4 optional substituents; n = 0-2; R5 = (un)substituted alkyl; R6, R7 = H, (un)substituted alkyl, alkoxycarbonyl, acyl, etc.; or NR6R7 = (un)saturated C5-8 heterocyclyl] are useful against insect and acarine pests. For example, reduction of 4-(F5S)C6H4NO2 with Fe and HCl gave 4-(F5S)C6H4NH2, which reacted with CO(OCCl3)2 and K2CO3 in PhMe to give 4-(F5S)C6H4NCO. Reaction of the latter isocyanate with 3-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole in CH2Cl2 gave title compound II. In tests at 500 ppm, II gave 80-100% kill of *Heliothis virescens*, *Spodoptera exigua*, and *Diabrotica balteata*, 40-79% kill of *Myzus persicae*, and <40% kill of *Tetranychus urtica*.

IT 2993-24-0P, 4-Aminobenzenesulfur pentafluoride
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of dihydropyrazole compds. as insecticides and acaricides)

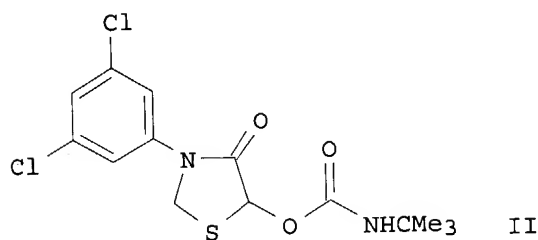
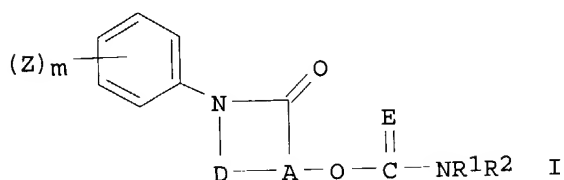
RN 2993-24-0 CAPLUS
 CN Sulfur, (4-aminophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 18 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1995:205485 CAPLUS
 DOCUMENT NUMBER: 122:81373
 TITLE: Preparation of [(Phenyl)heterocyclyl] Carbamates or Thiocarbamates as Herbicides
 INVENTOR(S): Kay, Ian Trevor; Barton, John Edward Duncan; Collins, David John; Kowalczyk, Bogdan; Mitchell, Glynn; Shribbs, John Martin; Cox, John Michael; Barnes, Nigel John; Smith, Stephen Christopher
 PATENT ASSIGNEE(S): Zeneca Ltd., UK
 SOURCE: PCT Int. Appl., 213 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9413652	A1	19940623	WO 1993-GB2350	19931116
W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9454691	A1	19940704	AU 1994-54691	19931116
AU 676867	B2	19970327		
EP 672038	A1	19950920	EP 1994-900212	19931116
EP 672038	B1	20000119		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				

HU 70685	A2	19951030	HU 1995-1502	19931116
JP 08504431	T2	19960514	JP 1993-513904	19931116
RU 2125050	C1	19990120	RU 1995-113593	19931116
BR 9307595	A	19990908	BR 1993-7595	19931116
AT 188962	E	20000215	AT 1994-900212	19931116
ZA 9308589	A	19950119	ZA 1993-8589	19931117
IL 107673	A1	19980715	IL 1993-107673	19931118
CN 1095066	A	19941116	CN 1993-121666	19931204
CN 1039492	B	19980812		
US 5856273	A	19990105	US 1995-446778	19951006
PRIORITY APPLN. INFO.:			GB 1992-25377	A 19921204
			WO 1993-GB2350	W 19931116
OTHER SOURCE(S):			MARPAT 122:81373	
GI				

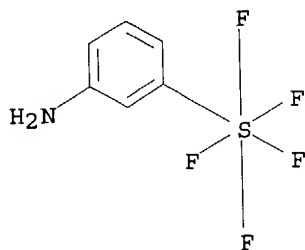


AB The title compds., [(phenyl)heterocyclyl] carbamates or thiocarbamates I (E = oxygen, sulfur; A = carbon or nitrogen; D = alkanediyl in 5- or 6-membered nonarom. heterocyclic ring; R1, R2 = H, or R1R2 = together cycloalkyl group; Z = halo, alkyl, etc.; m = 0-5) were disclosed. Herbicides containing I are claimed. An example compound, 3-(3,5-dichlorophenyl)-4-oxo-5-thiazolidinyl tert-butylcarbamate (II) was prepared

IT **2993-22-8P**
 RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (preparation of, as intermediate for [(phenyl)heterocyclyl] carbamate or thiocarbamate herbicide)

RN 2993-22-8 CAPLUS

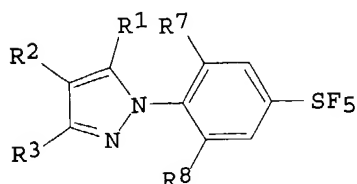
CN Sulfur, (3-aminophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



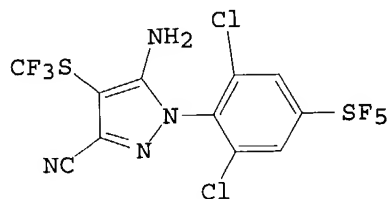
L5 ANSWER 19 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:539218 CAPLUS
DOCUMENT NUMBER: 119:139218
TITLE: Preparation of N-(4-pentafluorosulphenylphenyl)pyrazole
s as insecticides and acaricides
INVENTOR(S): Salmon, Roger
PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9306089	A1	19930401	WO 1992-GB1636	19920908
W: AU, BB, BG, BR, CA, CS, FI, GB, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, RU, SD, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
ZA 9206785	A	19930609	ZA 1992-6785	19920907
IL 103083	A1	19990312	IL 1992-103083	19920907
AU 9225413	A1	19930427	AU 1992-25413	19920908
AU 664199	B2	19951109		
EP 605469	A1	19940713	EP 1992-918815	19920908
EP 605469	B1	19980211		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, SE				
HU 66735	A2	19941228	HU 1994-855	19920908
HU 213636	B	19970828		
JP 07500319	T2	19950112	JP 1992-505864	19920908
BR 9206552	A	19951017	BR 1992-6552	19920908
AT 163180	E	19980215	AT 1992-918815	19920908
ES 2112913	T3	19980416	ES 1992-918815	19920908
CN 1071163	A	19930421	CN 1992-111258	19920926
CN 1030985	B	19960214		
US 5451598	A	19950919	US 1994-211232	19940801
CN 1115205	A	19960124	CN 1995-114805	19950314
AU 9530512	A1	19951123	AU 1995-30512	19950908
AU 692902	B2	19980618		
PRIORITY APPLN. INFO.:				GB 1991-20641 19910927
				WO 1992-GB1636 19920908
OTHER SOURCE(S): MARPAT 119:139218				
GI				



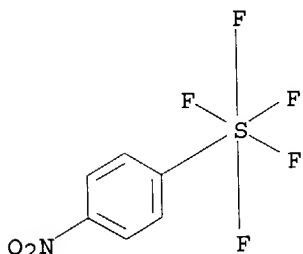
I



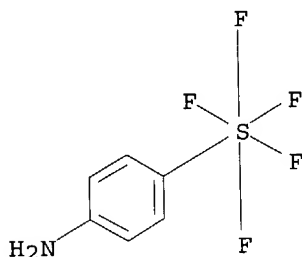
II

AB Title compds. [I; R₁ = H, halo, NR₄R₅; R₂ = SO_nR₆; R₃ = cyano, C(:X)NY₁Y₂; R₄, R₅ = H, alkyl; R₆ = haloalkyl; R₇, R₈ = halo; X = O, S; Y₁, Y₂ = H, NO₂, NH₂, alkyl, etc.; NY₁Y₂ = heterocyclyl] were prepared Thus, 4-(O₂N)C₆H₄SF₅ was reduced and the diazotized product cyclocondensed with NCCH₂CH(CN)CO₂Et to give, after CF₃SCl treatment, title compound II which gave 80-100% kill of 5 pests, e.g., Musca domestica at 500 ppm.

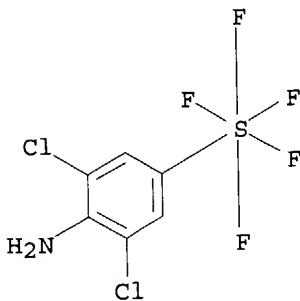
IT 2613-27-6P, 4-Nitrophenylsulfur pentafluoride 2993-24-0P
 , 4-Aminophenylsulfur pentafluoride 149757-20-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (preparation and reaction of, in preparation of acaricide and insecticide)
 RN 2613-27-6 CAPLUS
 CN Sulfur, pentafluoro(4-nitrophenyl)-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 2993-24-0 CAPLUS
 CN Sulfur, (4-aminophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)

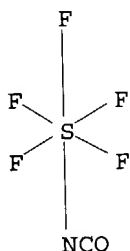


RN 149757-20-0 CAPLUS
 CN Sulfur, (4-amino-3,5-dichlorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)

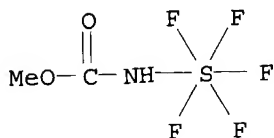


L5 ANSWER 20 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1993:51283 CAPLUS
 DOCUMENT NUMBER: 118:51283
 TITLE: Pentafluoro(isocyanato)-λ6-sulfane (SF5N=C=O)
 AUTHOR(S): Thrasher, Joseph S.; Clark, Matthew; Nielsen, Jon B.;
 Alvarado, Carlos; Anderson, Mark T.; Steinke,
 Guenther; Meier, Thomas; Mews, Ruediger
 CORPORATE SOURCE: Dep. Chem., Univ. Alabama, Tuscaloosa, AL, 35487, USA
 SOURCE: Inorganic Syntheses (1992), 29, 38-40
 CODEN: INSYA3; ISSN: 0073-8077

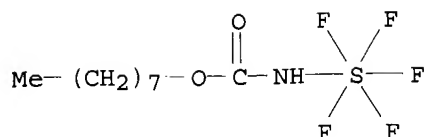
DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB N.tplbond.SF3 reacts with COF2 and HF to form SF5NHC(O)F, which reacts with NaF to form SF5NCO.
 IT 2375-30-6P
 RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (preparation of, by reaction of carbonyl and hydrogen and thiazylfluorides and subsequent reaction with sodium fluoride)
 RN 2375-30-6 CAPLUS
 CN Sulfur, pentafluoro(cyanato-κN)-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 21 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1991:558492 CAPLUS
 DOCUMENT NUMBER: 115:158492
 TITLE: N-Pentafluorosulfanyl-N-nitro carbamates
 AUTHOR(S): Sitzmann, Michael E.
 CORPORATE SOURCE: Nav. Surf. Warf. Cent., Silver Spring, MD, 20903-5000, USA
 SOURCE: Journal of Fluorine Chemistry (1991), 52(2), 195-207
 CODEN: JFLCAR; ISSN: 0022-1139
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 115:158492
 AB Nitration of N-(pentafluorosulfanyl) carbamates or N-(pentafluorosulfanyl)alkyl carbamates with (F3CCO)2O/HNO3 gave N-nitro N-(pentafluorosulfanyl)alkyl carbamates; the nitration did not proceed readily. Treatment of F5SNHCO2CH2CH2C(NO)3 with F3CCO)2O/HNO3 gave 43% F5S(O2N)NCO2CH2CH2C(NO2)3; the nitration failed with (MeCO)2O/HNO3 or P2O5/HNO3.
 IT 89590-14-7P, O-Methyl N-(pentafluorosulfanyl) carbamate
 136397-69-8P, O-Octyl N-(pentafluorosulfanyl) carbamate
 RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
 (preparation and nitration of)
 RN 89590-14-7 CAPLUS
 CN Sulfur, pentafluoro(methyl carbamato-N)-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 136397-69-8 CAPLUS
 CN Sulfur, pentafluoro(octyl carbamato-N)-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 22 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1989:460565 CAPLUS

DOCUMENT NUMBER: 111:60565

TITLE: Preparation of pentafluorosulfanyl polynitroaliphatic urea, monocarbamate, and dicarbamate explosive compounds using pentafluorosulfanyl isocyanate reactant

INVENTOR(S): Sitzmann, Michael E.; Gilligan, William H.

PATENT ASSIGNEE(S): United States Dept. of the Navy, USA

SOURCE: U. S. Pat. Appl., 19 pp. Avail. NTIS Order No. PAT-APPL-6-213 038.

CODEN: XAXXAV

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 213038	A0	19890215	US 1988-213038	19880624
US 4831186	A	19890516		

PRIORITY APPLN. INFO.: US 1988-213038 19880624

OTHER SOURCE(S): MARPAT 111:60565

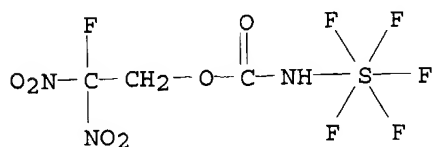
AB The title explosives are prepared by reacting pentafluorosulfanyl isocyanate (I) with polynitroaliph. alcs. and have the formulas: (a) $\text{F}_5\text{SNHCO}_2\text{R}$, [R = $\text{CH}_2\text{C}(\text{N})_2\text{Me}$, $(\text{CH}_2)_2\text{C}(\text{NO}_2)_3$, $\text{CH}_2\text{CF}(\text{NO}_2)_2$, $\text{CH}_2\text{C}(\text{NO}_2)_3$], (b) $\text{F}_5\text{SNHCONHCH}_2\text{CF}(\text{NO}_2)_2$, and (c) $(\text{F}_5\text{SNHCO}_2)_2\text{R}_1$ [R1 = $\text{CH}_2\text{C}(\text{NO}_2)_2\text{CH}_2$, $\text{CH}_2\text{C}(\text{NO}_2)_2\text{CH}_2(\text{OCH}_2)_2\text{C}(\text{NO}_2)_2\text{CH}_2$, $(\text{CH}_2)_2\text{N}(\text{NO}_2)(\text{CH}_2)_2\text{N}(\text{NO}_2)(\text{CH}_2)_2$, $(\text{CH}_2)_2\text{N}(\text{NO}_2)\text{CH}_2\text{C}(\text{NO}_2)_2(\text{CH}_2)_3$]. These compds. have high m.p., energy, and d. and have good thermal properties vs. similar compds. prepared with pentafluorothioacetyl chloride. Thus, N-pentafluorosulfanyl-2,2-dinitropropyl carbamate, prepared by reacting I with 2,2-dinitropropanol and $(\text{CH}_2\text{Cl})_2$, had m.p. 93-94°.

IT 121713-81-3P 121713-84-6P

RL: PREP (Preparation)
(preparation of explosive)

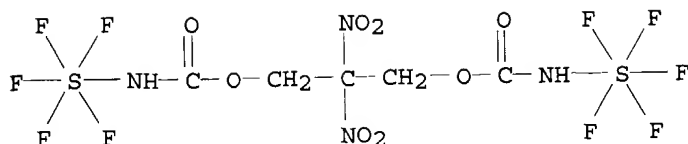
RN 121713-81-3 CAPLUS

CN Sulfur, pentafluoro(2-fluoro-2,2-dinitroethyl carbamato)-, (OC-6-21)-(9CI) (CA INDEX NAME)



RN 121713-84-6 CAPLUS

CN Sulfur, [μ -[[2,2-dinitro-1,3-propanediyl di(carbamato- κ N)](2-)]decafluorodi- (9CI) (CA INDEX NAME)



L5 ANSWER 23 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:94954 CAPLUS

DOCUMENT NUMBER: 106:94954

TITLE: Sulfur pentafluoride cyanate, F5SOC.tplbond.N

AUTHOR(S): Schmuck, Arno; Seppelt, Konard

CORPORATE SOURCE: Inst. Anorg. Anal. Chem., Freie Univ., Berlin, D-1000/33, Fed. Rep. Ger.

SOURCE: Angewandte Chemie (1987), 99(2), 138-9

CODEN: ANCEAD; ISSN: 0044-8249

DOCUMENT TYPE: Journal

LANGUAGE: German

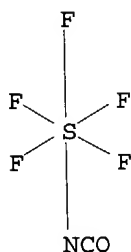
AB F5SOCl reacted with Cl₂C:NCl at -120 to -70° to give F5SOCCl₂NCl₂ which on treatment with Hg at -20° gave cis- and trans-F5SOC(Cl):NCl (I). Cl was eliminated from I by treatment with Hg at room temperature to give F5SOC.tplbond.N. The product always contains some ClC.tplbond.N impurity. F5SOC.tplbond.N was characterized by IR, mass, and NMR spectra, which were compared with those of F5SNCO. F5SOCl reacted with ClCN at -196 to 25° to give F5SOCClFNCl₂ which on treatment with Zn followed by vacuum distillation gave cis- and trans-F5SOClF:NCl (II). Treatment of II in the presence of Zn at 250° gave only a trace of F5SNCO.

IT 2375-30-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 2375-30-6 CAPLUS

CN Sulfur, pentafluoro(cyanato-κN)-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:101278 CAPLUS

DOCUMENT NUMBER: 104:101278

TITLE: Tetrakis(pentafluorosulfanyl)hydrazine and bis(pentafluorosulfanyl)aminyl radical

AUTHOR(S): Thrasher, Joseph S.; Nielsen, Jon B.

CORPORATE SOURCE: Dep. Chem., Univ. Alabama, University, AL, 35486, USA

SOURCE: Journal of the American Chemical Society (1986), 108(5), 1108-9

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The novel hydrazine (SF₅)₂NN(SF₅)₂ was prepared in ≤20% yield from the UV photolysis of SF₅NCl₂ and SF₅Cl. The compound is a colorless, crystalline solid (m.p. 44.5-46.0°) which was characterized by IR, NMR, and

mass spectra. In CCl_3F solvent in the vicinity of room temperature, $(\text{SF}_5)_2\text{NN}$ ($\text{SF}_5)_2$ undergoes reversible homolytic N-N bond cleavage to give $(\text{SF}_5)_2\text{N}\cdot$ radicals which were identified by ESR spectroscopy. The spectrum of the radical ($g = 2.0033$) consists of an 11 line pattern (overlapping triplet of nonets; $a(^{14}\text{N}) = 13.5 \text{ G}$, $a(^{19}\text{F}) = 13.5 \text{ G}$) with an intensity ratio of 1:9:37:92:154:182:154:92:37:9:1 thus indicating 8 equiv (basal) fluorines.

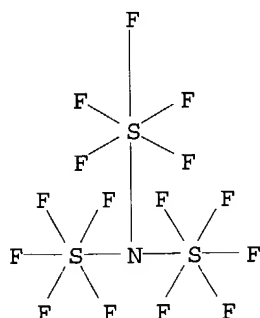
IT 100312-09-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation by UV photolysis of dichloroamidopentafluorosulfur and sulfur chloride pentafluoride and homolytic bond cleavage in trichlorofluoromethane)

RN 100312-09-2 CAPLUS

CN Nitrogen fluoride sulfide (NF15S3) (9CI) (CA INDEX NAME)



L5 ANSWER 25 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1984:551004 CAPLUS

DOCUMENT NUMBER: 101:151004

TITLE: Acylations of pentafluorosulfanylamine, SF_5NH_2 . Part II. Reactions of N-(pentafluorosulfanyl)carbonyl fluoride, SF_5NHCOF , and N-(pentafluorosulfanyl)perfluorosuccinimide, cyclo- $\text{SF}_5\text{NCOCF}_2\text{CF}_2\text{C}(\text{O})$

AUTHOR(S): Thrasher, Joseph S.; Howell, Jon L.; Clifford, Alan F.
CORPORATE SOURCE: Dep. Chem., Virginia Polytech. Inst. and State Univ., Blacksburg, VA, 24061, USA

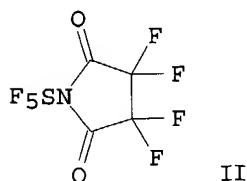
SOURCE: Journal of Fluorine Chemistry (1984), 24(4), 431-42
CODEN: JFLCAR; ISSN: 0022-1139

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 101:151004

GI

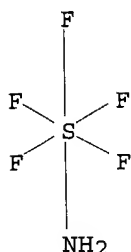


II

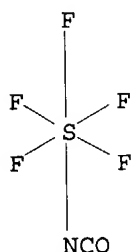
AB Treating SF_5NHCOF (I) with H_2O or H_2S gave $(\text{SF}_5\text{NH})_2\text{CO}$. On the other hand, treating I with PhLi , HF or PCl_5 gave the dehydrofluorination product SF_5NCO . The title cyclic imide (II) was cleaved readily by nucleophiles. Thus, hydrolysis of II gave $\text{SF}_5\text{NHCOCF}_2\text{CF}_2\text{CO}_2\text{H}$, and treatment with anhydrous NH_3 gave $\text{SF}_5\text{NHCOCF}_2\text{CF}_2\text{CONH}_2$. Attempts to prepare 6- and 7-membered cyclic

amides analogous to II failed.

IT **15192-28-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**
(**Preparation**); RACT (Reactant or reagent)
(preparation and reaction with perfluorinated dicarbonyl dichlorides)
RN 15192-28-6 CAPLUS
CN Sulfur amide fluoride (S(NH₂)F₅), (OC-6-21)- (7CI, 9CI) (CA INDEX NAME)



IT **2375-30-6P**
RL: SPN (Synthetic preparation); **PREP** (**Preparation**)
(preparation of)
RN 2375-30-6 CAPLUS
CN Sulfur, pentafluoro(cyanato-κN)-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 26 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1984:422610 CAPLUS

DOCUMENT NUMBER: 101:22610

TITLE: Reactions of pentafluorosulfanyl isocyanate and isothiocyanate

AUTHOR(S): Thrasher, Joseph S.; Howell, Jon L.; Clifford, Alan F.

CORPORATE SOURCE: Dep. Chem., Virginia Polytech. Inst. State Univ., Blacksburg, VA, 24061, USA

SOURCE: Chemische Berichte (1984), 117(5), 1707-25
CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: English

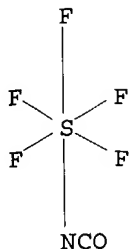
OTHER SOURCE(S): CASREACT 101:22610

AB SF₅N:CZ [Z = O (I), S] were prepared and their reactions with alcs., thiols, amines, aldehydes, etc., were examined. Thus, reaction of I with ROH (e.g., R = Me or Ph) gave SF₅NHCO₂R. Reaction of I with acetylacetone gave SF₅NHCOCH(COCH₃)₂, which in solution also exists in two distinct enol forms. With HC(OMe)₃ I gave SF₅NMeCO₂Me and SF₅NHCOC(OMe)₃.

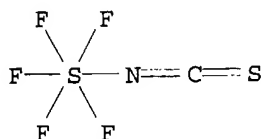
IT **2375-30-6P 2992-86-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**
(**Preparation**); RACT (Reactant or reagent)
(preparation and reactions of)

RN 2375-30-6 CAPLUS

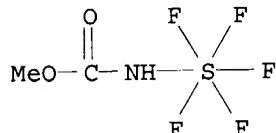
CN Sulfur, pentafluoro(cyanato-κN)-, (OC-6-21)- (9CI) (CA INDEX NAME)



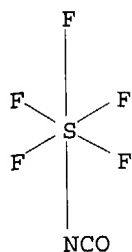
RN 2992-86-1 CAPLUS
 CN Sulfur, pentafluoro(thiocyanato-N)-, (OC-6-21)- (9CI) (CA INDEX NAME)



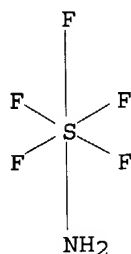
IT 89590-14-7P
 RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (preparation of)
 RN 89590-14-7 CAPLUS
 CN Sulfur, pentafluoro(methyl carbamato-N)-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 27 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1984:209119 CAPLUS
 DOCUMENT NUMBER: 100:209119
 TITLE: Reactions of N-pentafluorosulfanylurethanes and
 thiolurethanes with phosphorus pentachloride
 AUTHOR(S): Thrasher, Joseph S.; Clifford, Alan F.
 CORPORATE SOURCE: Dep. Chem., Virginia Polytech. Inst. and State Univ.,
 Blacksburg, VA, 24061, USA
 SOURCE: Journal of Fluorine Chemistry (1983), 23(6), 593-6
 CODEN: JFLCAR; ISSN: 0022-1139
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB SF5NHCO2R (I; R = Me, Ph; R = 1/2 CH2CH2) react with PCl5 to give SF5NCO
 as the major product. I (R = Ph) also gave SF5N:CClOPh. The
 corresponding reactions of SF5NHCOSR give both SF5NCO and the imine
 product. The new compds. SF5N:CClR (R = Me, Ph) were identified by IR,
 NMR and mass spectrometry.
 IT 2375-30-6P
 RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (preparation of)
 RN 2375-30-6 CAPLUS
 CN Sulfur, pentafluoro(cyanato-κN)-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 28 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1982:527002 CAPLUS
 DOCUMENT NUMBER: 97:127002
 TITLE: N-pentafluorosulfanyl derivatives: a synthetic study
 AUTHOR(S): Thrasher, Joseph Stuart
 CORPORATE SOURCE: Virginia Polytech. Inst. State Univ., Blackburg, VA, USA
 SOURCE: (1981) 522 pp. Avail.: Univ. Microfilms Int., Order No. DA8206936
 From: Diss. Abstr. Int. B 1982, 42(10), 4058-9
 DOCUMENT TYPE: Dissertation
 LANGUAGE: English
 AB Unavailable
 IT 15192-28-6DP, derivs.
 RL: SPN (Synthetic preparation); **PREP (Preparation)** (preparation of)
 RN 15192-28-6 CAPLUS
 CN Sulfur amide fluoride (S(NH₂)F₅), (OC-6-21)- (7CI, 9CI) (CA INDEX NAME)



L5 ANSWER 29 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1977:4917 CAPLUS
 DOCUMENT NUMBER: 86:4917
 TITLE: The preparation and reactions of pentafluorosulfanyl isocyanate and N,N1-bis(pentafluorosulfanyl)urea
 AUTHOR(S): Duncan, L. C.; Rhyne, T. C.; Clifford, Alan F.; Shaddix, R. E.; Thompson, James Wood
 CORPORATE SOURCE: Dep. Chem., Virginia Polytech. Inst., Blacksburg, VA, USA
 SOURCE: Inorg. Nucl. Chem. - Herbert H. Hyman Mem. Vol. (1976), 33-6. Editor(s): Katz, Joseph J.; Sheft, Irving. Pergamon: Oxford, Engl.
 CODEN: 33TZAU
 DOCUMENT TYPE: Conference
 LANGUAGE: English
 AB Pentafluorosulfanyl isocyanate (SF₅NCO) (I) was prepared by the addition of COF₂ to thiazyl trifluoride in the presence of anhydrous HF or HCl. Increasing the ratio of anhydrous HF to the other reactants resulted in decreased yield of I, although without the acid no I was formed. I in an excess of anhydrous HF yielded the starting materials. Isolated from

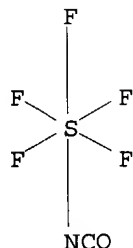
anhydrous HCl-catalyzed reaction was pentafluorosulfanylcarbamyl chloride. N,N'-bis(pentafluorosulfanyl)urea (F₅SNHCONHSF₅) was synthesized from I and pentafluorosulfanylamine or from thiazyl trifluoride, anhydrous HF and COF₂. The reaction was reversed in excess anhydrous HF or when the urea was heated under vacuum to over 90°. With Et₃N the urea decomposed

IT 2375-30-6P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**
(**Preparation**); RACT (Reactant or reagent)
(preparation and reactions of)

RN 2375-30-6 CAPLUS

CN Sulfur, pentafluoro(cyanato-κN)-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 30 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1976:129889 CAPLUS

DOCUMENT NUMBER: 84:129889

TITLE: The pentafluorosulfanylimination of organic and inorganic compounds

AUTHOR(S): Clifford, A. F.; Shanzer, A.

CORPORATE SOURCE: Dep. Chem., Virginia Polytech. Inst., Blacksburg, VA, USA

SOURCE: Journal of Fluorine Chemistry (1976), 7(1-3), 65-76
CODEN: JFLCAR; ISSN: 0022-1139

DOCUMENT TYPE: Journal

LANGUAGE: English

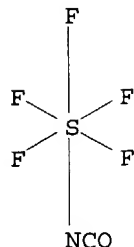
AB Reactions of SF₅NCO, SF₅NH₂, SF₅N:SF₂, SF₅N:SCl₂, and SF₅N:CCl₂, with appropriate substrates have produced SF₅N:SMe₂, SF₅N:CHPh, SF₅N:CCl₂, SF₅N:SCl₂, (SF₅N:)₂C, (SF₅N:)₂S, and SF₅N:PCl₃, some of which are new compds. and some of which represent improved routes to compds. previously reported. The preps. and properties of these are described.

IT 2375-30-6P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**
(**Preparation**); RACT (Reactant or reagent)
(preparation and reactions of)

RN 2375-30-6 CAPLUS

CN Sulfur, pentafluoro(cyanato-κN)-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 31 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1972:500776 CAPLUS

DOCUMENT NUMBER: 77:100776
 TITLE: α,α -Fluorinated alkyl isocyanates
 INVENTOR(S): Clifford, Alan F.; Rhyne, Thomas C.; Thompson, James W.
 PATENT ASSIGNEE(S): United States Atomic Energy Commission
 SOURCE: U.S., 3 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

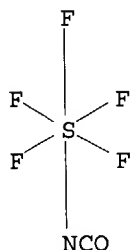
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3666784	A	19720530	US 1969-853541	19690827
PRIORITY APPLN. INFO.: US 1969-853541			19690827	

AB MeCF₂NCO was prepared by treating MeCN with COF₂. Analogously, F₅SNCO was prepared from NSF₃ and COF₂.

IT 2375-30-6P
 RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (preparation of)

RN 2375-30-6 CAPLUS

CN Sulfur, pentafluoro(cyanato-κN)-, (OC-6-21)- (9CI) (CA INDEX NAME)



L5 ANSWER 32 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1967:510203 CAPLUS
 DOCUMENT NUMBER: 67:110203
 TITLE: Isocyanatosulfur and isothiocyantosulfur pentafluorides
 INVENTOR(S): Tullock, Charles W.
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co.
 SOURCE: U.S., 3 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3347644		19671017	US	19620627

AB The title compds., which are used as water repellent, were prepared by treating SF₅NHCF₃ with a carboxylic or carbothiolic acid in the presence of an alkali metal fluoride. Thus, a mixture containing BzOH 88, NaF 103, and SF₅NHCF₃ 129 g. was heated 1 hrs. at 100°, and then 1 hr. at 200° under autogeneous pressure. The reaction mixture was distilled to give 11 g. of a mixture containing 65% SF₅NCO and 25% SO₂F₂ with a small amount of SOF₄ and 61 g. SF₅NCO, b. 5-5.5°. The ir and N.M.R. spectra of the obtained products are given. A mixture of 15 g. SF₅NCO, 9.6 g. benzyl alc., and 20 ml. CCl₄ were left to stand 48 hrs. at 25° and then warmed 2

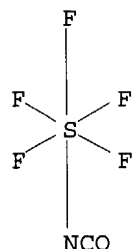
hrs. at 90° to give 80% of white SF5NHCO2CH2Ph, m. 101-2° (CCl4). SF5NCS, b. p. 42.0-4.3°, was prepared by treating SF5N:CCl2 with H2S and NaF at 75-125°. SF5NCS was also prepared by treating SF5NHCF3 with NaF and thiolbenzoic acid SF5NCS was used as a solvent for low mol. weight polytetrafluoroethylene.

IT 2375-30-6P 2992-86-1P

RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of)

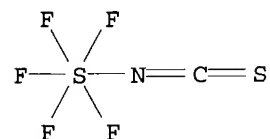
RN 2375-30-6 CAPLUS

CN Sulfur, pentafluoro(cyanato-κN)-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 2992-86-1 CAPLUS

CN Sulfur, pentafluoro(thiocyanato-N)-, (OC-6-21)- (9CI) (CA INDEX NAME)



=> file beilstein

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

178.14	216.55
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE

-24.26	-24.26
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FILE 'BEILSTEIN' ENTERED AT 19:29:30 ON 18 MAY 2004

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FILE RELOADED ON OCTOBER 20, 2002

FILE LAST UPDATED ON MARCH 30, 2004

FILE COVERS 1771 TO 2003.

*** FILE CONTAINS 8,932,479 SUBSTANCES ***

>>> PLEASE NOTE: Reaction data and substance data are stored in separate documents and can not be searched together in one query.

Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a molecular formula or a structure search for example can be restricted to compounds with available reaction information by concatenation with PRE/FA, REA/FA or

more general with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For more detailed reaction searches BRNs can be selected from substance answer sets and searched in the next step as reaction partner BRNs - Reactant (RX.RBRN) or Product BRN (RX.PBRN). After a search for reaction details substance documents associated with reactants or products may be retrieved by searching RX.PBRNs or RX.RBRNs as BRNs. <<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

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* FOR PRICE INFORMATION SEE HELP COST *

=> d his

(FILE 'HOME' ENTERED AT 19:13:11 ON 18 MAY 2004)

FILE 'REGISTRY' ENTERED AT 19:16:45 ON 18 MAY 2004

L1 0 S PENTAFLUOROSULFANYL BENZENE/CN
L2 0 S PENTAFLUOROSULFANYL BENZEN
L3 12 S PENTAFLUOROSULFANYL BENZENE
L4 29 S PENTAFLUOROSULFANYL

FILE 'CAPLUS' ENTERED AT 19:18:13 ON 18 MAY 2004

L5 32 S L4/PREP

FILE 'REGISTRY' ENTERED AT 19:19:06 ON 18 MAY 2004

L6 10 S CLF5S/MF

FILE 'CAPLUS' ENTERED AT 19:19:48 ON 18 MAY 2004

S L5 AND 13780-57-9/REG#

FILE 'REGISTRY' ENTERED AT 19:20:16 ON 18 MAY 2004

L7 1 S 13780-57-9/RN

FILE 'CAPLUS' ENTERED AT 19:20:16 ON 18 MAY 2004

L8 169 S L7
L9 4 S L5 AND L8

FILE 'BEILSTEIN' ENTERED AT 19:29:30 ON 18 MAY 2004

=> s l4

L10 10 L4

=> s l10 and phenyl

2111403 PHENYL

1 PHENYLS

2111404 PHENYL

(PHENYL OR PHENYLS)

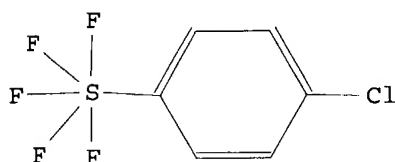
L11 5 L10 AND PHENYL

=> d ide 1-5

L11 ANSWER 1 OF 5 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 3032440

Beilstein Pref. RN (BPR):	5310-68-9
CAS Reg. No. (RN):	5310-68-9
Chemical Name (CN):	4-Chlor-phenyl-schwefelpentafluorid
Molec. Formula (MF):	C6 H4 Cl F5 S
Molecular Weight (MW):	238.60
Lawson Number (LN):	13804
Compound Type (CTYPE):	isocyclic
Constitution ID (CONSID):	2733660
Tautomer ID (TAUTID):	2896930
Beilstein Citation (BSO):	5-11
Entry Date (DED):	1989/07/11
Update Date (DUPD):	1991/01/23



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
BP	Boiling Point	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	1
RI	Refractive Index	1
UVS	UV and Visible Spectrum	1

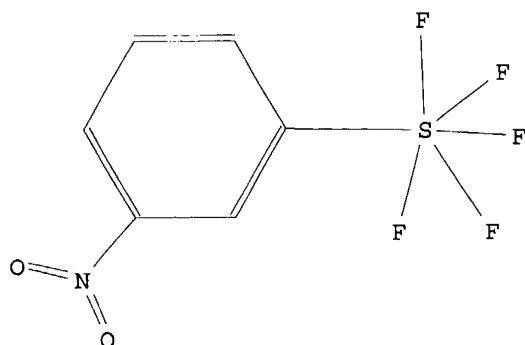
This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

L11 ANSWER 2 OF 5 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN):	2699206
Beilstein Pref. RN (BPR):	2613-26-5
CAS Reg. No. (RN):	2613-26-5
Chemical Name (CN):	3-Nitro-phenyl-schwefelpentafluorid-

(1)
Molec. Formula (MF): C6 H4 F5 N O2 S
Molecular Weight (MW): 249.16
Lawson Number (LN): 13804
Compound Type (CTYPE): isocyclic
Constitution ID (CONSID): 2377577
Tautomer ID (TAUTID): 2509364
Beilstein Citation (BSO): 5-11
Entry Date (DED): 1989/07/05
Update Date (DUPD): 2000/10/23



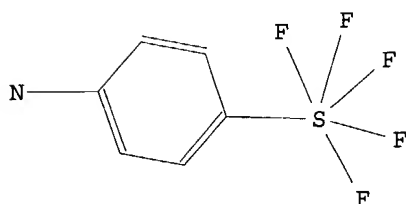
Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
BP	Boiling Point	2
ELCB	Electrochemical Behaviour	1
IR	Infrared Spectrum	2
MP	Melting Point	1
MS	Mass Spectrum	1
NMR	Nuclear Magnetic Resonance	11
RI	Refractive Index	3
UVS	UV and Visible Spectrum	2

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	3
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	2

Beilstein Records (BRN): 2694823
 Beilstein Pref. RN (BPR): 2993-24-0
 CAS Reg. No. (RN): 2993-24-0
 Chemical Name (CN): **4-Amino-phenyl-schwefelpentafluorid**
 Molec. Formula (MF): C6 H6 F5 N S
 Molecular Weight (MW): 219.17
 Lawson Number (LN): 16308
 Compound Type (CTYPE): isocyclic
 Constitution ID (CONSID): 2372796
 Tautomer ID (TAUTID): 2525247
 Beilstein Citation (BSO): 5-14
 Entry Date (DED): 1989/07/05
 Update Date (DUPD): 2000/10/23



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
MF	Molecular Formula	1
FW	Molecular Weight	1
LN	Lawson Number	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
CDER	Chemical Derivative	1
DE	Dissociation Exponent	1
DM	Dipole Moment	1
FINFO	Further Information	1
IR	Infrared Spectrum	2
MP	Melting Point	3
MS	Mass Spectrum	1
NMR	Nuclear Magnetic Resonance	7
UVS	UV and Visible Spectrum	1

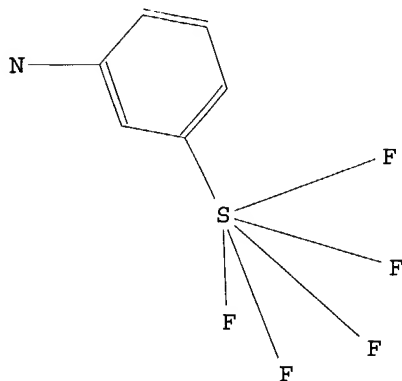
This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	6

RXREA	Substance is Reaction Reactant	4
RXPRO	Substance is Reaction Product	2

L11 ANSWER 4 OF 5 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN):	2694820
Beilstein Pref. RN (BPR):	2993-22-8
CAS Reg. No. (RN):	2993-22-8
Chemical Name (CN):	3-Amino-phenyl-schwefelpentafluorid
Molec. Formula (MF):	C6 H6 F5 N S
Molecular Weight (MW):	219.17
Lawson Number (LN):	16308
Compound Type (CTYPE):	isocyclic
Constitution ID (CONSID):	2372687
Tautomer ID (TAUTID):	2527960
Beilstein Citation (BSO):	5-14
Entry Date (DED):	1989/07/05
Update Date (DUPD):	2000/10/23



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
BP	Boiling Point	1
CDER	Chemical Derivative	1
DE	Dissociation Exponent	1
DM	Dipole Moment	1
IR	Infrared Spectrum	2

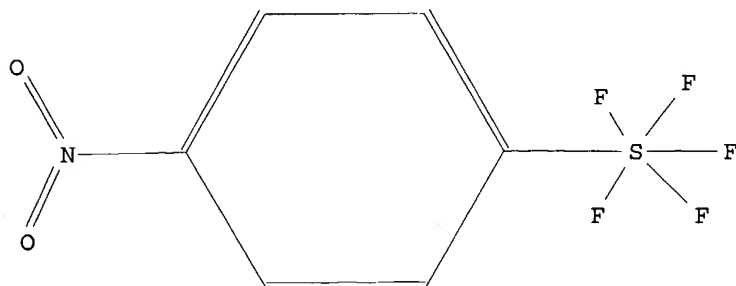
MP	Melting Point	2
MS	Mass Spectrum	1
NMR	Nuclear Magnetic Resonance	7
RI	Refractive Index	2
UVS	UV and Visible Spectrum	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
=====	=====	=====
RX	Reaction Documents	6
RXREA	Substance is Reaction Reactant	4
RXPRO	Substance is Reaction Product	2

L11 ANSWER 5 OF 5 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 1986023
 Beilstein Pref. RN (BPR): 2613-27-6
 CAS Reg. No. (RN): 2613-27-6
 Chemical Name (CN): **4-Nitro-phenyl-schwefelpentafluorid**
 Molec. Formula (MF): C6 H4 F5 N O2 S
 Molecular Weight (MW): 249.16
 Lawson Number (LN): 13804
 Compound Type (CTYPE): isocyclic
 Constitution ID (CONSID): 1795821
 Tautomer ID (TAUTID): 1854509
 Beilstein Citation (BSO): 5-11, 6-11
 Entry Date (DED): 1989/06/29
 Update Date (DUPD): 2000/10/23



Field Availability:

Code	Name	Occurrence
=====	=====	=====
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	2

ED	Entry Date	1
UPD	Update Date	1
BP	Boiling Point	3
ELCB	Electrochemical Behaviour	1
IR	Infrared Spectrum	2
MP	Melting Point	1
MS	Mass Spectrum	1
NMR	Nuclear Magnetic Resonance	9
RI	Refractive Index	4
UVS	UV and Visible Spectrum	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	5
RXREA	Substance is Reaction Reactant	2
RXPRO	Substance is Reaction Product	3

=> d frxpro 1-5

L11 ANSWER 1 OF 5 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Reaction:

RX

Reaction ID (.ID):	8021864
Product BRN (.PBRN):	3032440
Product (.PRO):	4-Chlor-phenyl-schwefelpentafluorid
No. of React. Details (.NVAR):	1

Reaction Details:

RX

Reaction RID (.RID):	8021864.1
Reaction Classification (.CL):	Preparation (half reaction)
Reference(s):	1. Sheppard, J.Amer.Chem.Soc., CODEN: JACSAT, 84, <1962>, 3072,3074

L11 ANSWER 2 OF 5 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Reaction:

RX

Reaction ID (.ID):	7720671
Product BRN (.PBRN):	2699206
Product (.PRO):	3-Nitro-phenyl-schwefelpentafluorid-(1)
No. of React. Details (.NVAR):	1

Reaction Details:

RX

Reaction RID (.RID):	7720671.1
Reaction Classification (.CL):	Preparation (half reaction)
Reference(s):	1. Sheppard, J.Amer.Chem.Soc., CODEN: JACSAT, 84, <1962>, 3072,3074

Reaction:

RX

Reaction ID (.ID):	5144501
Reactant BRN (.RBRN):	2005775
Reactant (.RCT):	bis-(3-nitro-phenyl)-disulfide
Product BRN (.PBRN):	2699206
Product (.PRO):	3-Nitro-phenyl-schwefelpentafluorid-(1)
No. of React. Details (.NVAR):	2

Reaction Details:

RX

Reaction RID (.RID): 5144501.1
 Reaction Classification (.CL): Preparation
 Yield (.YDT): 39 percent (BRN=2699206)
 Reagent (.RGT): F2
 Solvent (.SOL): acetonitrile
 Time (.TIM): 6 hour(s)
 Temperature (.T): -7.6 - -4.5 Cel
 Reaction Type (.TYP): Fluorination
 Reference(s):
 1. Bowden, Roy D.; Comina, Paul J.; Greenhall, Martin P.; Kariuki, Benson M.; Loveday, Amanda; Philp, Douglas, Tetrahedron, CODEN: TETRAB, 56(21), <2000>, 3399 - 3408; BABS-6236241

RX

Reaction RID (.RID): 5144501.2
 Reaction Classification (.CL): Preparation
 Yield (.YDT): 75 percent (BRN=2699206)
 Reagent (.RGT): F2
 Solvent (.SOL): acetonitrile
 Other Conditions (.COND): Ambient temperature
 Reference(s):
 1. Chambers, Richard D.; Spink, Robert C. H., Chem.Comm., CODEN: CHCOFS(10), <1999>, 883 - 884; BABS-6173463

L11 ANSWER 3 OF 5 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Reaction:

RX

Reaction ID (.ID): 7717542
 Product BRN (.PBRN): 2694823
 Product (.PRO): 4-Amino-phenyl-schwefelpentafluorid
 No. of React. Details (.NVAR): 1

Reaction Details:

RX

Reaction RID (.RID): 7717542.1
 Reaction Classification (.CL): Preparation (half reaction)
 Reference(s):
 1. Sheppard, J.Amer.Chem.Soc., CODEN: JACSAT, 84, <1962>, 3072,3074
 2. Patent: du Pont de Nemours and Co. US 3073861 1959, Chem.Abstr., 58(13849), <1963>
 3. Patent: Du Pont US 3117158 1959, Chem.Abstr., 60(13189), <1964>

Reaction:

RX

Reaction ID (.ID): 5266696
 Reactant BRN (.RBRN): 1986023
 Reactant (.RCT): 4-Nitro-phenyl-schwefelpentafluorid
 Product BRN (.PBRN): 2694823
 Product (.PRO): 4-Amino-phenyl-schwefelpentafluorid
 No. of React. Details (.NVAR): 2

Reaction Details:

RX

Reaction RID (.RID): 5266696.1
 Reaction Classification (.CL): Preparation
 Yield (.YDT): 48 percent (BRN=2694823)
 Reagent (.RGT): H2
 Catalyst (.CAT): Pd/C
 Solvent (.SOL): ethanol
 Reaction Type (.TYP): Hydrogenolysis

Reference(s):

1. Bowden, Roy D.; Comina, Paul J.; Greenhall, Martin P.; Kariuki, Benson M.; Loveday, Amanda; Philp, Douglas, Tetrahedron, CODEN: TETRAB, 56(21), <2000>, 3399 - 3408; BABS-6236241

RX

Reaction RID (.RID): 5266696.2
Reaction Classification (.CL): Preparation
Reagent (.RGT): H2
Catalyst (.CAT): 5 percent Pd/C
Solvent (.SOL): tetrahydrofuran
Reaction Type (.TYP): Catalytic hydrogenation
Reference(s):

1. Kirsch, Peer; Bremer, Matthias; Heckmeier, Michael; Tarumi, Kazuaki, Angew.Chem.Int.Ed., CODEN: ACIEF5, 38(13/14), <1999>, 1989 - 1992, Angew.Chem., CODEN: ANCEAD, 111, <1999>, 2174 - 2178; BABS-6217934

L11 ANSWER 4 OF 5 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Reaction:

RX

Reaction ID (.ID): 8559359
Reactant BRN (.RBRN): 2699206
Reactant (.RCT): 3-Nitro-phenyl-schwefelpentafluorid-(1)
Product BRN (.PBRN): 2694820
Product (.PRO): 3-Amino-phenyl-schwefelpentafluorid
No. of React. Details (.NVAR): 1

Reaction Details:

RX

Reaction RID (.RID): 8559359.1
Reaction Classification (.CL): Preparation
Yield (.YDT): 70 percent (BRN=2694820)
Reagent (.RGT): H2
Catalyst (.CAT): Pd/C
Solvent (.SOL): ethanol
Reaction Type (.TYP): Hydrogenolysis
Reference(s):

1. Bowden, Roy D.; Comina, Paul J.; Greenhall, Martin P.; Kariuki, Benson M.; Loveday, Amanda; Philp, Douglas, Tetrahedron, CODEN: TETRAB, 56(21), <2000>, 3399 - 3408; BABS-6236241

Reaction:

RX

Reaction ID (.ID): 7717539
Product BRN (.PBRN): 2694820
Product (.PRO): 3-Amino-phenyl-schwefelpentafluorid
No. of React. Details (.NVAR): 1

Reaction Details:

RX

Reaction RID (.RID): 7717539.1
Reaction Classification (.CL): Preparation (half reaction)
Reference(s):
1. Sheppard, J.Amer.Chem.Soc., CODEN: JACSAT, 84, <1962>, 3072,3074
2. Patent: du Pont de Nemours and Co. US 3073861 1959, Chem.Abstr., 58(13849), <1963>
3. Patent: Du Pont US 3117158 1959, Chem.Abstr., 60(13189), <1964>

L11 ANSWER 5 OF 5 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Reaction:

RX

Reaction ID (.ID): 8555194
Reactant BRN (.RBRN): 1889811
Reactant (.RCT): bis-(4-nitro-phenyl)-disulfane
Product BRN (.PBRN): 1986023
Product (.PRO): 4-Nitro-phenyl-schwefelpentafluorid
No. of React. Details (.NVAR): 1

Reaction Details:

RX

Reaction RID (.RID): 8555194.1
Reaction Classification (.CL): Preparation
Yield (.YDT): 41 percent (BRN=1986023)
Reagent (.RGT): F2
Solvent (.SOL): acetonitrile
Time (.TIM): 24 hour(s)
Temperature (.T): -7.6 - -4.5 Cel
Reaction Type (.TYP): Fluorination
Reference(s):
1. Bowden, Roy D.; Comina, Paul J.; Greenhall, Martin P.; Kariuki, Benson M.; Loveday, Amanda; Philp, Douglas, Tetrahedron, CODEN: TETRAB, 56(21), <2000>, 3399 - 3408; BABS-6236241

Reaction:

RX

Reaction ID (.ID): 7208210
Product BRN (.PBRN): 1986023
Product (.PRO): 4-Nitro-phenyl-schwefelpentafluorid
No. of React. Details (.NVAR): 1

Reaction Details:

RX

Reaction RID (.RID): 7208210.1
Reaction Classification (.CL): Preparation (half reaction)
Reference(s):
1. Patent: du Pont de Nemours andCo. US 3073861 1959, Chem.Abstr., 58(13849), <1963>
2. Patent: E.I. du Pont de Nemours + Co. US 3135736 1964, Chem.Abstr., 61(4273t), <1964>
3. Sheppard, J.Amer.Chem.Soc., CODEN: JACSAT, 84, <1962>, 3072,3074
4. Patent: Du Pont US 3117158 1959, Chem.Abstr., 60(13189), <1964>

Reaction:

RX

Reaction ID (.ID): 5146611
Reactant BRN (.RBRN): 2648704
Reactant (.RCT): 4-Nitro-phenyl-schwefeltrifluorid
Product BRN (.PBRN): 1986023
Product (.PRO): 4-Nitro-phenyl-schwefelpentafluorid
No. of React. Details (.NVAR): 1

Reaction Details:

RX

Reaction RID (.RID): 5146611.1
Reaction Classification (.CL): Preparation
Yield (.YDT): 44 percent (BRN=1986023)
Reagent (.RGT): F2
Other Conditions (.COND): Ambient temperature
Reference(s):
1. Chambers, Richard D.; Spink, Robert C. H., Chem.Comm., CODEN: CHCOFS(10), <1999>, 883 - 884; BABS-6173463

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

	ENTRY	SESSION
FULL ESTIMATED COST	93.22	309.77

	SINCE FILE ENTRY	TOTAL SESSION
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)		
CA SUBSCRIBER PRICE	0.00	-24.26

FILE 'REGISTRY' ENTERED AT 19:34:51 ON 18 MAY 2004
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 17 MAY 2004 HIGHEST RN 682740-60-9
DICTIONARY FILE UPDATES: 17 MAY 2004 HIGHEST RN 682740-60-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>
Uploading C:\Program Files\Stnexp\Queries\10627831.str

L12 STRUCTURE UPLOADED

=> s l12
SAMPLE SEARCH INITIATED 19:35:04 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 75 TO ITERATE

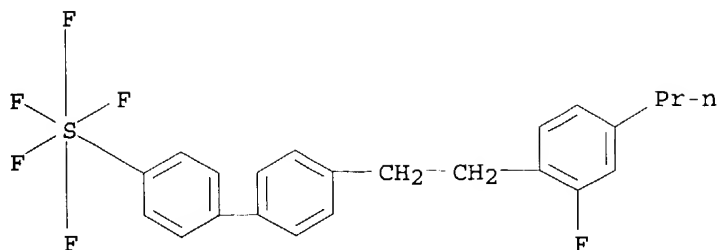
100.0% PROCESSED 75 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 981 TO 2019
PROJECTED ANSWERS: 688 TO 1592

L13 50 SEA SSS SAM L12

=> d scan

L13 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Sulfur, pentafluoro[4'-(2-(2-fluoro-4-propylphenyl)ethyl)[1,1'-biphenyl]-4-
yl]-, (OC-6-21)- (9CI)
MF C23 H22 F6 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): 0

=> s l12 full

FULL SEARCH INITIATED 19:35:21 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1417 TO ITERATE

100.0% PROCESSED 1417 ITERATIONS

1097 ANSWERS

SEARCH TIME: 00.00.01

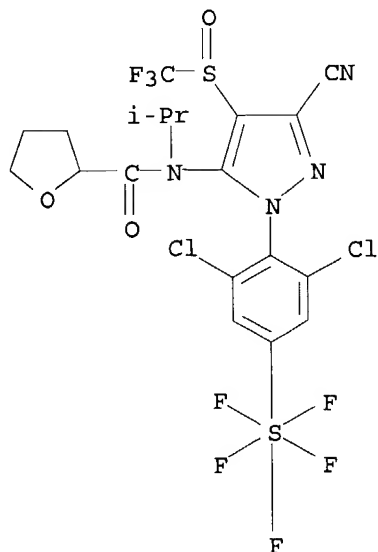
L14 1097 SEA SSS FUL L12

=> d scan

L14 1097 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Sulfur, [3,5-dichloro-4-[3-cyano-5-[(1-methylethyl)[(tetrahydro-2-furanyl)carbonyl]amino]-4-[(trifluoromethyl)sulfinyl]-1H-pyrazol-1-yl]phenyl]pentafluoro-, (OC-6-21)- (9CI)

MF C19 H16 Cl2 F8 N4 O3 S2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	155.42	465.19
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-24.26

FILE 'CAPLUS' ENTERED AT 19:35:41 ON 18 MAY 2004
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FILE COVERS 1907 - 18 May 2004 VOL 140 ISS 21
 FILE LAST UPDATED: 17 May 2004 (20040517/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 19:13:11 ON 18 MAY 2004)

FILE 'REGISTRY' ENTERED AT 19:16:45 ON 18 MAY 2004

L1 0 S PENTAFLUOROSULFANYL BENZENE/CN
 L2 0 S PENTAFLUOROSULFANYL BENZEN
 L3 12 S PENTAFLUOROSULFANYL BENZENE
 L4 29 S PENTAFLUOROSULFANYL

FILE 'CAPLUS' ENTERED AT 19:18:13 ON 18 MAY 2004

L5 32 S L4/PREP

FILE 'REGISTRY' ENTERED AT 19:19:06 ON 18 MAY 2004

L6 10 S CLF5S/MF

FILE 'CAPLUS' ENTERED AT 19:19:48 ON 18 MAY 2004

S L5 AND 13780-57-9/REG#

FILE 'REGISTRY' ENTERED AT 19:20:16 ON 18 MAY 2004

L7 1 S 13780-57-9/RN

FILE 'CAPLUS' ENTERED AT 19:20:16 ON 18 MAY 2004

L8 169 S L7
 L9 4 S L5 AND L8

FILE 'BEILSTEIN' ENTERED AT 19:29:30 ON 18 MAY 2004

L10 10 S L4
 L11 5 S L10 AND PHENYL

FILE 'REGISTRY' ENTERED AT 19:34:51 ON 18 MAY 2004

L12 STRUCTURE UPLOADED
 L13 50 S L12

L14 1097 S L12 FULL

FILE 'CAPLUS' ENTERED AT 19:35:41 ON 18 MAY 2004

=> s l14/prep and l6

96 L14
3148620 PREP/RL
55 L14/PREP
(L14 (L) PREP/RL)
175 L6

L15 3 L14/PREP AND L6

=> d ibib abs hitstr 1-3

L15 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:101125 CAPLUS

DOCUMENT NUMBER: 140:163466

TITLE: Stereoselective method and catalysts for incorporation
of pentafluorosulfanyl substituents into aliphatic and
aromatic compounds

INVENTOR(S): Dolbier, William R., Jr.; Ait-Mohand, Samia

PATENT ASSIGNEE(S): University of Florida, USA

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011422	A1	20040205	WO 2003-US24836	20030724
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2002-399044P P 20020725

US 2003-448831P P 20030221

OTHER SOURCE(S): CASREACT 140:163466

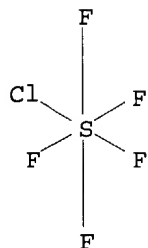
AB A convenient, regiospecific and highly stereoselective addition of SF5Cl in high yield to a variety of alkenes (e.g., 1-heptene into 2-chloro-1-pentafluorosulfanylheptane) and alkynes is presented using organoboron (e.g., triethylboron) catalysts.

IT 13780-57-9

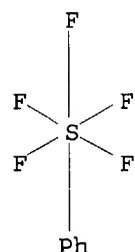
RL: RCT (Reactant); RACT (Reactant or reagent)
(stereoselective method and catalysts for incorporation of
pentafluorosulfanyl substituents into aliphatic and aromatic compds.)

RN 13780-57-9 CAPLUS

CN Sulfur chloride fluoride (SClF5), (OC-6-22)- (9CI) (CA INDEX NAME)

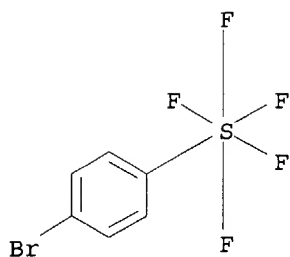


IT 2557-81-5P
 RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (stereoselective method and catalysts for incorporation of
 pentafluorosulfanyl substituents into aliphatic and aromatic compds.)
 RN 2557-81-5 CAPLUS
 CN Sulfur, pentafluorophenyl-, (OC-6-21)- (9CI) (CA INDEX NAME)

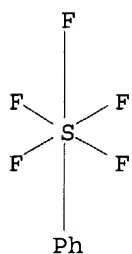


REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

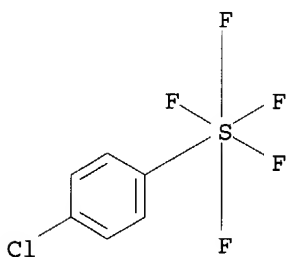
L15 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2003:266648 CAPLUS
 DOCUMENT NUMBER: 139:172029
 TITLE: Reactions of sulfur fluorides and benzenes in a low
 temperature plasma
 AUTHOR(S): Klampfer, Peter; Skapin, Tomaz; Kralj, Bogdan; Zigon,
 Dusan; Jesih, Adolf
 CORPORATE SOURCE: Jozef Stefan Inst., Ljubljana, 1111, Slovenia
 SOURCE: Acta Chimica Slovenica (2003), 50(1), 29-42
 CODEN: ACSLE7; ISSN: 1318-0207
 PUBLISHER: Slovenian Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Sulfur fluorides SF₆, ClSF₅ and CF₃SF₅ were reacted with C₆H₆, C₆H₅Br and
 C₆H₅Cl in a low temperature radio-frequency plasma. Due to the stepwise
 dissociation of sulfur fluorides, the fluorination of benzenes was observed In
 all reaction products C₆H₅SF₅ was found in minor quantities, and BrC₆H₄SF₅
 or ClC₆H₄SF₅ along with numerous halogenated benzenes when C₆H₅Br or
 C₆H₅Cl were used as reactants, resp.
 IT 774-93-6P 2557-81-5P 5310-68-9P
 RL: MOA (Modifier or additive use); PNU (Preparation, unclassified);
PREP (Preparation); USES (Uses)
 (reactions of sulfur fluorides and benzenes in a low temperature plasma)
 RN 774-93-6 CAPLUS
 CN Sulfur, (4-bromophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



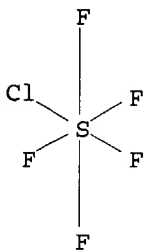
RN 2557-81-5 CAPLUS
 CN Sulfur, pentafluorophenyl-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 5310-68-9 CAPLUS
 CN Sulfur, (4-chlorophenyl)pentafluoro-, (OC-6-21)- (9CI) (CA INDEX NAME)



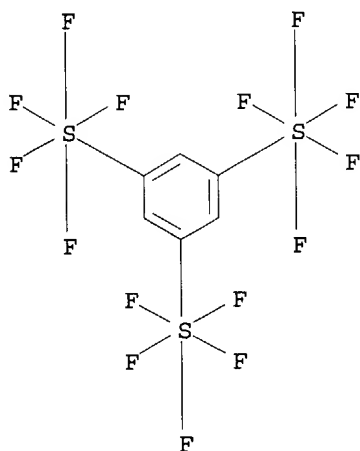
IT 13780-57-9
 RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
 (reactions of sulfur fluorides and benzenes in a low temperature plasma)
 RN 13780-57-9 CAPLUS
 CN Sulfur chloride fluoride (SClF5), (OC-6-22)- (9CI) (CA INDEX NAME)



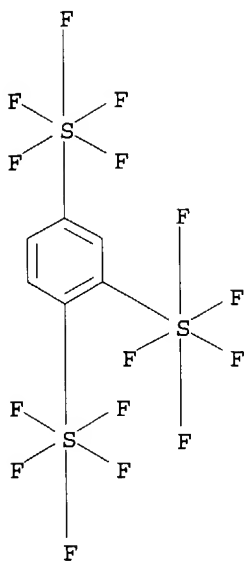
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1986:442282 CAPLUS

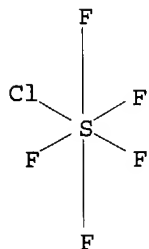
DOCUMENT NUMBER: 105:42282
 TITLE: Derivatives of the acetylenes
 (pentafluorothio)acetylene and
 bis(pentafluorothio)acetylene
 AUTHOR(S): Wessel, Juergen; Hartl, Hans; Seppelt, Konrad
 CORPORATE SOURCE: Inst. Anorg. Anal. Chem., Freie Univ. Berlin, Berlin,
 D-1000/33, Fed. Rep. Ger.
 SOURCE: Chemische Berichte (1986), 119(2), 453-63
 CODEN: CHBEAM; ISSN: 0009-2940
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 OTHER SOURCE(S): CASREACT 105:42282
 AB Title acetylenes RC.tplbond.CSF5 (I; R = Cl, Br, iodo, Me3Si) were prepared
 from I (R = H) (II). Treatment of II with Co2(CO)8 afforded complexes
 Co2(CO)7-n (HC.tplbond.CSF5)n [n = 1, 2, 3, (III)]; F5SC.tplbond.CSF5
 similarly gave Co2(CO)6(F5SC.tplbond.CSF5)2. A crystal structure determination
 showed that III contains a helical six-membered carbon chain as ligand.
 Decomposition of III afforded mainly C6H3(SF5)2-1,2,4. UV irradiation of II
 afforded C6H3(SF5)3-1,3,5. Complexation of I (R = Me3Si, SF5) with
 Co2(CO)8 afforded the complexes Co2(CO)6(RC.tplbond.CSF5).
 IT 103077-42-5P 103077-43-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 103077-42-5 CAPLUS
 CN Sulfur, μ 3-1,3,5-benzenetriylpentadecafluorotri- (9CI) (CA INDEX NAME)



RN 103077-43-6 CAPLUS
 CN Sulfur, μ 3-1,2,4-benzenetriylpentadecafluorotri- (9CI) (CA INDEX NAME)



IT 13780-57-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (pentafluorothio)acetylene)
 RN 13780-57-9 CAPLUS
 CN Sulfur chloride fluoride (SClF5), (OC-6-22)- (9CI) (CA INDEX NAME)



=> FIL CASREACT

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	17.40	482.59
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-2.08	-26.34

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FILE CONTENT:1840 - 16 May 2004 VOL 140 ISS 20

Some records from 1974 to 1991 are derived from the ZIC/VINITI data file

and provided by InfoChem and some records are produced using some INPI data from the period prior to 1986.

This file contains CAS Registry Numbers for easy and accurate substance identification.

Crossover limits have been increased. See HELP RNCROSSOVER for details.

Structure search limits have been raised. See HELP SLIMIT for the new, higher limits.

=> D ACC 105:42282 ALL

ANSWER 1 CASREACT COPYRIGHT 2004 ACS on STN

AN 105:42282 CASREACT

TI Derivatives of the acetylenes (pentafluorothio)acetylene and bis(pentafluorothio)acetylene

AU Wessel, Juergen; Hartl, Hans; Seppelt, Konrad

CS Inst. Anorg. Anal. Chem., Freie Univ. Berlin, Berlin, D-1000/33, Fed. Rep. Ger.

SO Chemische Berichte (1986), 119(2), 453-63

CODEN: CHBEAM; ISSN: 0009-2940

DT Journal

LA German

CC 23-9 (Aliphatic Compounds)

Section cross-reference(s): 29, 75

AB Title acetylenes RC.tplbond.CSF5 (I; R = Cl, Br, iodo, Me3Si) were prepared from I (R = H) (II). Treatment of II with Co2(CO)8 afforded complexes Co2(CO)7-n (HC.tplbond.CSF5)n [n = 1, 2, 3, (III)]; F5SC.tplbond.CSF5 similarly gave Co2(CO)6(F5SC.tplbond.CSF5)2. A crystal structure determination showed that III contains a helical six-membered carbon chain as ligand. Decomposition of III afforded mainly C6H3(SF5)2-1,2,4. UV irradiation of II afforded C6H3(SF5)3-1,3,5. Complexation of I (R = Me3Si, SF5) with Co2(CO)8 afforded the complexes Co2(CO)6(RC.tplbond.CSF5).

ST acetylene pentafluorothio deriv; cobalt pentafluorothioacetylene complex; cryst structure pentafluorothioacetylene cobalt complex; mol structure pentafluorothioacetylene cobalt complex

IT Crystal structure

Molecular structure

(of tris[(pentafluorothio)acetyl]dicobalt tetracarbonyl)

IT 10210-68-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(complexation of, with (pentafluorothio)acetylene)

IT 69705-24-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(complexation of, with dicobalt octacarbonyl)

IT 917-89-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(metalation and halogenation of)

IT 103077-41-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and complexation with dicobalt octacarbonyl)

IT 103077-34-5P 103077-35-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and halogenation of)

IT 103077-36-7P 103077-37-8P 103077-38-9P 103077-39-0P 103077-40-3P

103077-42-5P 103077-43-6P 103172-97-0P 103172-98-1P 103194-50-9P

103221-95-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

IT 103221-96-1P

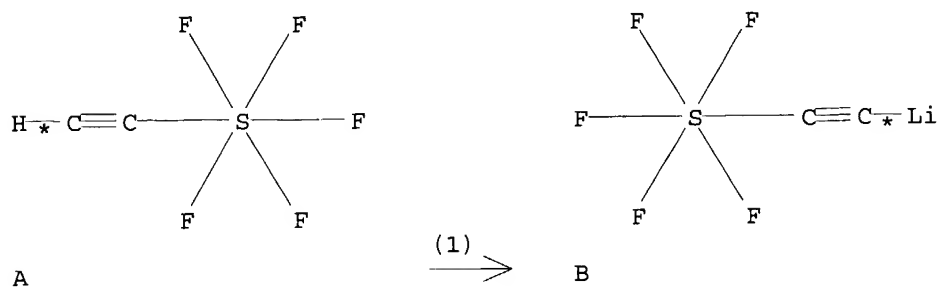
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation, cyclization, and crystal structure of)

IT 13780-57-9

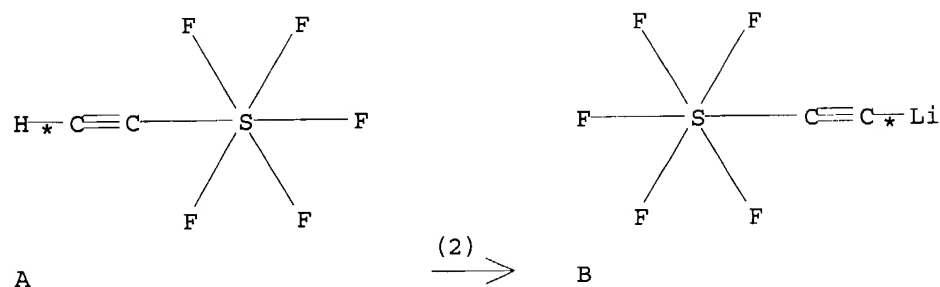
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (pentafluorothio)acetylene)

RX(1) OF 21 A ==> B...



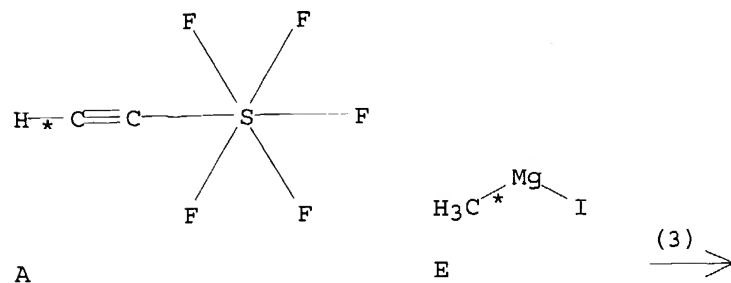
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PRO B 103077-34-5
SOL 109-66-0 Pentane

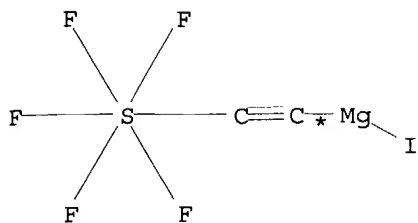
RX(2) OF 21 A ==> B



RX(2) RCT A 917-89-5
PRO B 103077-34-5
SOL 4111-54-0 LiN(Pr-i)2

RX(3) OF 21 A + E ==> F...

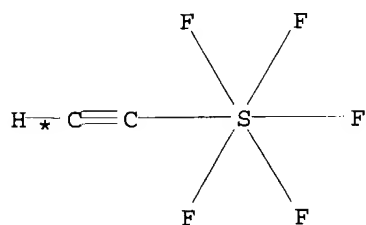




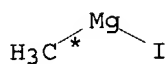
F

RX(3) RCT A 917-89-5, E 917-64-6
 PRO F 103077-35-6
 SOL 60-29-7 Et2O

RX(4) OF 21 A + E ==> F

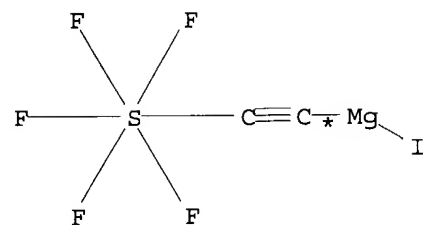


A



E

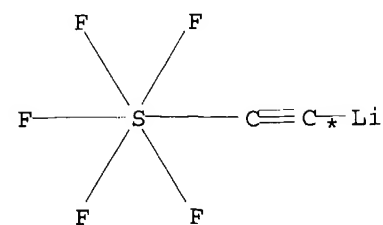
(4) \longrightarrow



F

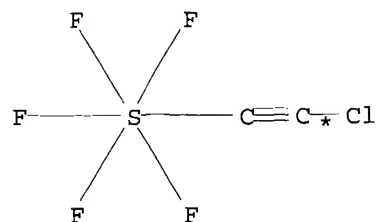
RX(4) RCT A 917-89-5, E 917-64-6
 PRO F 103077-35-6
 SOL 544-01-4 Butane, 1,1'-oxybis[3-methyl-

RX(5) OF 21 ...B ==> I



B

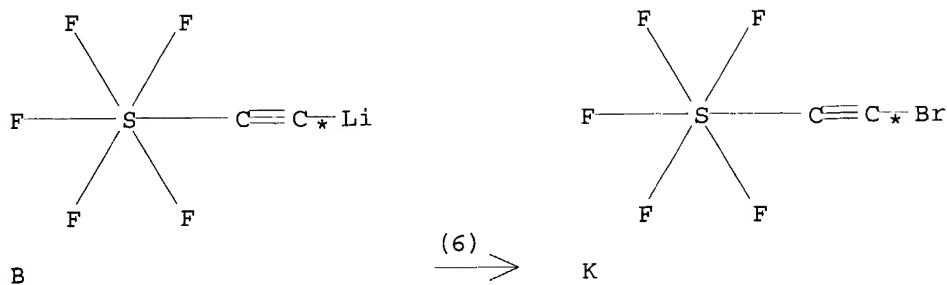
(5) \longrightarrow



I

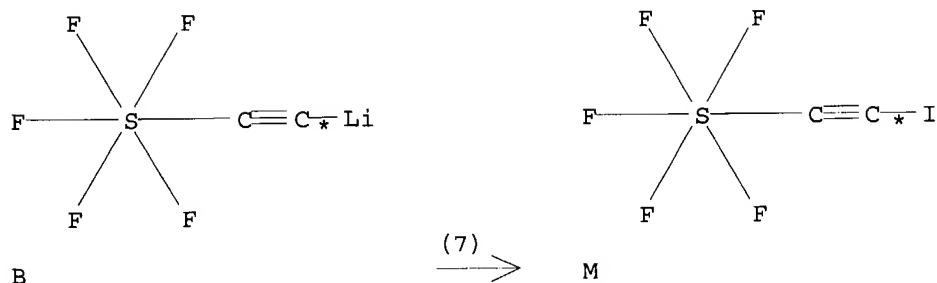
RX(5) RCT B 103077-34-5
 RGT J 7782-50-5 Cl2
 PRO I 103077-36-7
 SOL 109-66-0 Pentane

RX(6) OF 21 ...B ==> K



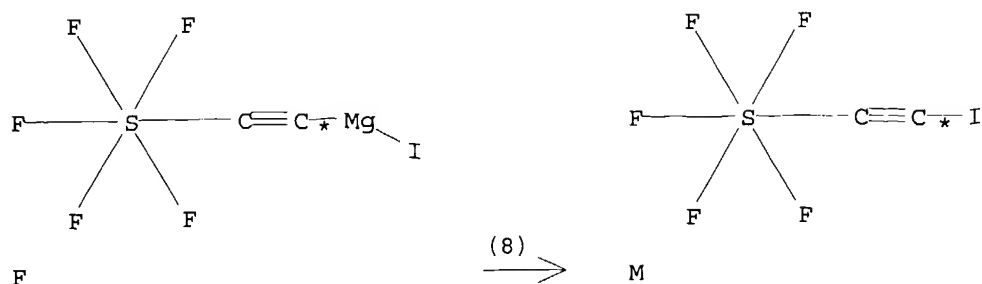
RX(6) RCT B 103077-34-5
 RGT L 7726-95-6 Br2
 PRO K 103077-37-8
 SOL 109-66-0 Pentane

RX(7) OF 21 ...B ==> M



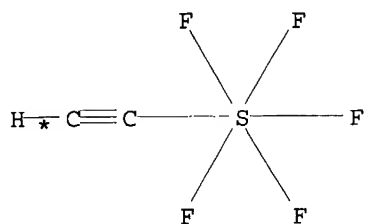
RX(7) RCT B 103077-34-5
 RGT N 7553-56-2 I2
 PRO M 103077-38-9
 SOL 109-66-0 Pentane

RX(8) OF 21 ...F ==> M



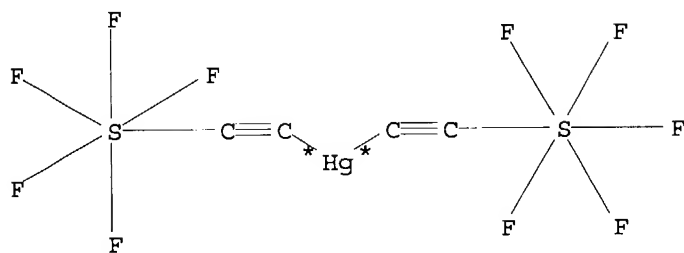
RX(8) RCT F 103077-35-6
 RGT O 13709-36-9 XeF2
 PRO M 103077-38-9
 SOL 60-29-7 Et2O

RX(9) OF 21 2 A ==> P



2 A

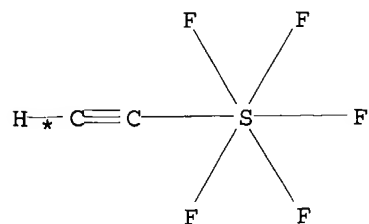
(9) \longrightarrow



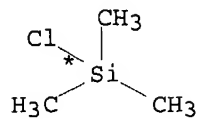
P

RX(9) RCT A 917-89-5
 PRO P 103077-40-3
 SOL 7732-18-5 Water

RX(10) OF 21 A + R ==> S...

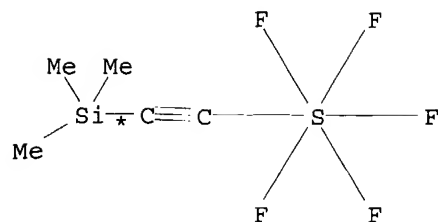


A



R

(10) \longrightarrow



S

RX(10) RCT A 917-89-5

STAGE(1)

RGT T 591-51-5 PhLi

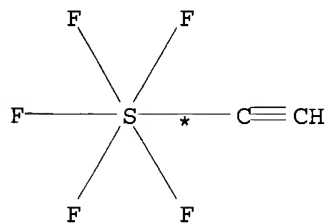
SOL 108-87-2 Methylcyclohexane, 60-29-7 Et2O

STAGE(2)

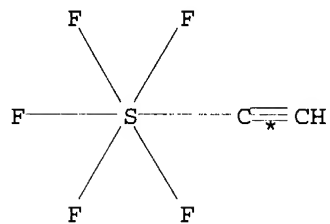
RCT R 75-77-4

PRO S 103077-41-4

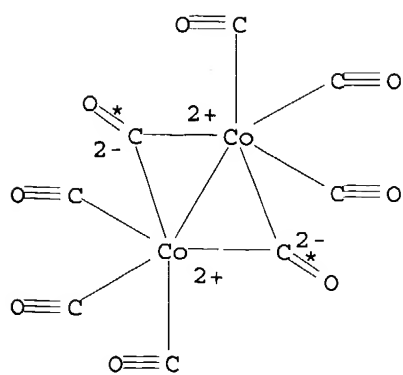
RX(11) OF 21 3 A + 2 V ==> W + X + Y...



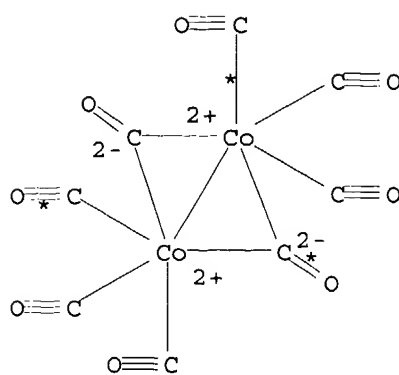
A



2 A

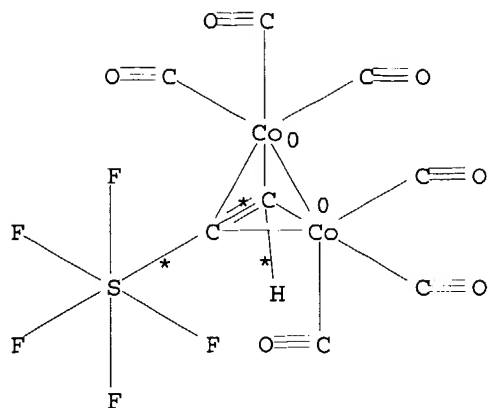


V



V

(11) →



W

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

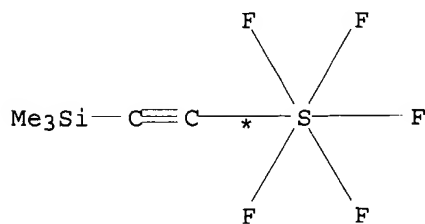
PAGE 2-A



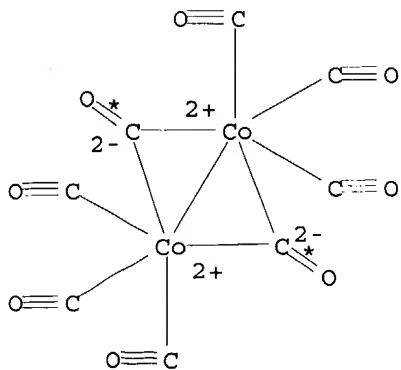
Y

RX(11) RCT A 917-89-5, V 10210-68-1
 PRO W 103172-97-0, X 103221-95-0, Y 103221-96-1
 SOL 142-82-5 Heptane

RX(12) OF 21 ...S + V ==> AA

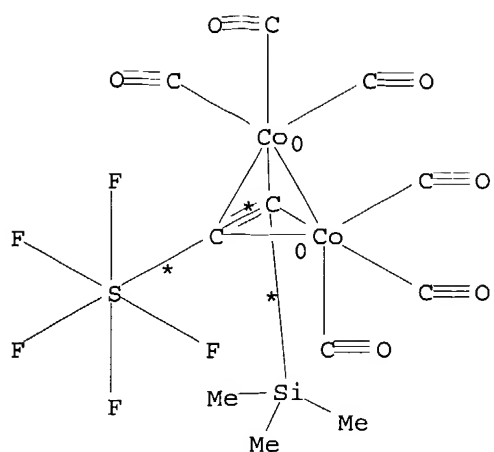


S



V

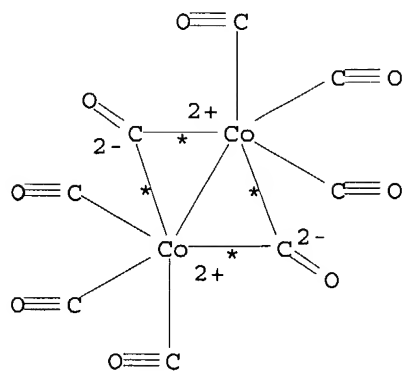
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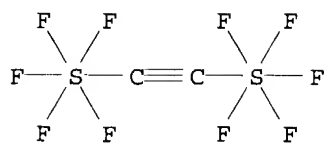
AA

RX(12) RCT S 103077-41-4, V 10210-68-1
 PRO AA 103194-50-9
 SOL 591-51-5 PhLi

RX(13) OF 21 V + AB ==> AC



V



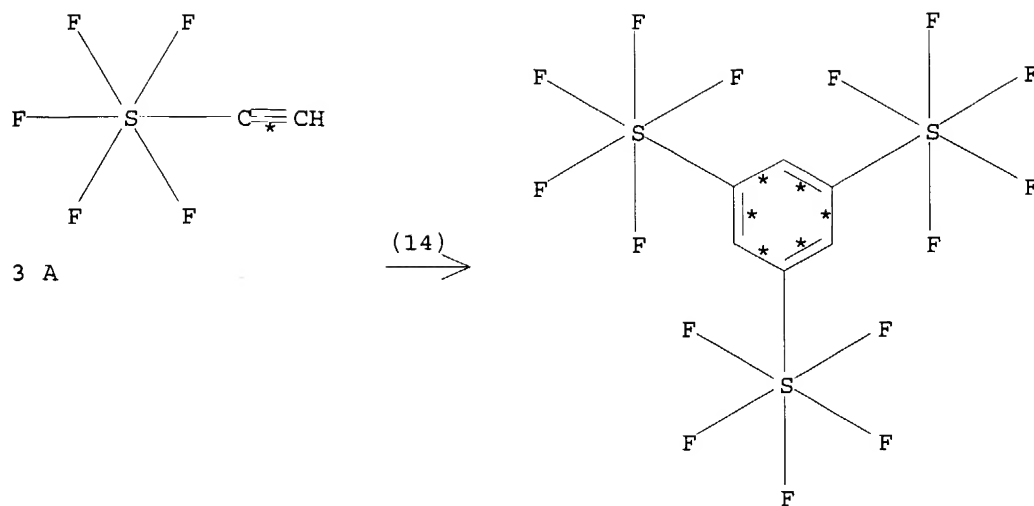
AB

(13) →

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RX(13) RCT V 10210-68-1, AB 69705-24-4
 PRO AC 103172-98-1
 SOL 142-82-5 Heptane

RX(14) OF 21 3 A ==> AD



AD

RX(14) RCT A 917-89-5
 PRO AD 103077-42-5
 NTE Photolysis

RX(15) OF 21 ...Y ==> AE

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 PAGE 2-A



Y

(15)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

RX(15) RCT Y 103221-96-1
 RGT L 7726-95-6 Br2
 PRO AE 103077-43-6
 SOL 75-72-9 CF3Cl